Statement reviewing the moral & material progress of India

1864-65 to 1871-72

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STATEMENT

SHOWING THE

MORAL AND MATERIAL PROGRESS OF INDIA, 1864-65.

I. Revenue.

1. Land.

By far the most important source to which rulers in India have, in all ages, looked for obtaining their income, is the land, the revenue from which, in the year before the Mutiny, furnished more than one-half of the total receipts of the East India Company's Treasury; and, even now, when the necessities of the Indian empire have rendered it compulsory to resort more largely to the aid of duties levied on the continually increasing trade of the country, no less a sum than 20,087,728 *l.*, out of a total income of 45,652,897 *l.*, is derived from the land revenue.

In his evidence before a Select Committee of the House of Commons, in 1831, Mr. James Mill, the well-known author of the "History of British India," spoke very strongly of the advantage accruing to the country from the circumstance that so large a portion of the revenue was derived from the rent of land, which had always been considered the property of the Government. "As far as this source goes," he added, "the people of the country remain untaxed. The wants of Government are supplied without any drain either upon the produce of any man's labour, or the produce of any man's capital."

The right of the State in the soil had been previously maintained by the Government of Lord Cornwallis, which, in the preamble to Regulation XIX. of 1793, stated that, by the ancient law of the country, the ruling power is entitled to a certain proportion of the produce of every acre of land, either in money or kind, according to local custom, unless it transfers its right thereto for a term or in perpetuity, or limits the public demand upon the whole of the land belonging to an individual, leaving him to appropriate to his own use the difference between that limit and the full value of the produce which the land may yield.

Revenue System.

The proportion which the assessment bears to the full value of the land varies in the several provinces and districts. Under the Native system, a fixed proportion of the gross produce was taken; the British system deals with the surplus or net produce which the State may yield after deducting the expenses of cultivation, and the directions to the revenue settlement officers provide that at least one-third of this net produce shall always be left to the cultivator as his profit.

In Bengal a permanent settlement was made by Lord Cornwallis, in 1793, with the zemindars or principal landowners, who pay direct to the Government a sum probably somewhat exceeding one-half of the amount which they receive as rent; by this measure, the Government was debarred from any further direct participation in the agricultural improvement of the country.

In the North-Western Provinces, a general settlement of the revenue was completed about five and twenty years ago, fixing the amount to be paid by each village for a period of 30 years, and a similar course has been adopted in the Punjab; it is estimated that, in this case, the assessment was about two-thirds of the yearly value (that is, the surplus after deducting expenses of cultivation,

tivation, profits of stock, and wages of labour), and, in the revised settlements which are now being made, it is reduced to one-half of the yearly value.

In the Madras Presidency there are three different revenue systems. The zemindary tenure exists in a few districts, but principally in the Northern Circars; the proprietors, of whom some possess old ancestral estates, and others were created landholders in 1802, hold the land direct from the Government, on payment of a fixed annual sum; its prominent defects are, that the whole of the waste lands are alienated from the State, and form part of the emoluments of the proprietor, to whom a considerable allowance (estimated at from 15 to 33 per cent. of the revenue) is also made for expenses of management, and that the influence of the landowner, which is very powerful, owing to the state of dependence in which all classes are placed under him, is often injuriously exercised, particularly in matters of police. In the village-renting system, the villagers stand in the position of the zemindar, and hold the land jointly from the Government, allotting the different portions for cultivation among themselves; it involves the serious defect of joint responsibility, and the want of clearly defined individual property in the land. Under the ryotwar system, every registered holder of land is recognized as its proprietor, and pays direct to the Government; he can sublet, transfer, sell, or mortgage it: he cannot be ejected by the Government, and, so long as he pays the fixed assessment, he has the option of annually increasing or diminishing the cultivation on his holding, or he may entirely abandon it. In unfavourable seasons remissions of assessment are granted for loss of produce. The assessment is fixed in money, and does not vary from year to year, except when water is obtained from a Government source of irrigation, nor is any addition made to the rent for improvements effected at the ryot's own expense; he has, therefore, all the benefit of a perpetual lease without its responsibilities, as he can at any time throw up his lands, but cannot be ejected so long as he pays his dues, and he receives assistance in difficult seasons. The original assessment was unfortunately fixed too high, but the reductions and re-assessments made of late years are materially improving the position of the cultivators. An annual settlement is made, not to re-assess the land, but to determine upon how much of his holding the ryot shall pay; when no change occurs in a holding, the ryot is not affected by the annual settlement, and is not required to attend it. The ryotwar system may be said essentially to prevail throughout the Presidency, as the zemindar and village renter equally deal with their tenants on this principle.

In Bombay, the revenue management is, gen rally speaking, ryotwar; that is, as a rule, the occupants of Government lands settle for their land revenue, or rent, with the Government officers direct, and not through the intervention of a middleman. Instances, however, occasionally occur, in which the Government revenues of entire villages are settled for by individual superior holders, under various denominations, or by a co-partnership of superior holders. The survey and assessment of the Bombay Presidency has been almost completed on a system introduced and carefully elaborated about 20 years ago by Mr. Goldsmid and Captain (now Sir George) Wingate. The whole country is surveyed and mapped, and the fields distinguished by permanent boundary marks which it is penal to remove; the soil of each field is classed according to its intrinsic qualities and to the climate; and the rate of assessment to be paid on fields of each class in each sub-division of a district is fixed on a careful consideration of the value of the crops they are capable of producing, as affected by the proximity to market towns, roads, canals, railways, and similar external incidents, but not by improvements made by the ryot himself. This rate was probably about one-half of the yearly value of the land, when fixed; but, owing to the general improvement of the country, it is not more than from a fourth to an eighth in the districts which have not been settled quite recently. The measurement and classification of the soil are made once for all; but the rate of assessment is open to revision at the end of every 30 years, in order that the ryot, on the one hand, may have the certainty of the long period as an inducement to lay out capital, and the State, on the other, may secure that participation in the advantages accruing from the general progress of society to which its joint proprietorship in the land entitles it. In the 30 years' revision, moreover, only public improvements and a general change of prices, but not improvements effected by the ryots themselves, will be considered as grounds for enhancing the assessment. The ryot's tenure is permanent, provided that he pays the assessment;

assessment; but he has the option of surrendering one or more of his fields, or the whole, and also of taking up additional fields which may be vacant, at the close of any given year.

At the commencement of the year, the collector frames his demand or estimate of the amount of land revenue which the district may be expected to yield, if all goes well, the demand being based on the fixed assessment, or, in Madras, on the statements of the proprietors as to the land which they intend to cultivate. If the full sum assessed is not realized, the difference is set off as a remission, whether this arises from the necessity to reduce the demand in consequence of the inability of the cultivator to pay, or simply from the fact that he has left uncultivated some part of the ground which had been expected to be tilled, and therefore that the assessment is not, under the rules, claimable on account of that land.

The important questions of the expediency of settling in perpetuity the amount of revenue to be paid to the Government by landholders, of permitting this revenue to be redeemed for ever by the payment of a capital sum of money, and of selling the fee simple of waste lands not under assessment, have been within the last few years fully considered by the Government of India.

Redemption of the Land Revenue.

The expediency of allowing owners of land to redeem the revenue was advocated as likely to promote the settlement of European colonists; but experience has shown that advantage is very rarely taken of the power which already exists in certain cases to redeem the rent by a quit payment; and it is unlikely that such a permission would be acted upon to any great extent, while the rate of interest afforded by an investment in the purchase of the land assessment is so far below that obtained in ordinary transactions as is at present the case in India.

It is evident, moreover, that the object which it is really sought to attain, is not so much the exemption from all land tax in future by the payment of a capital sum at the present time, as the security that the tax will not be increased, and that the conditions upon which the land can be obtained are fixed, and not liable to alteration hereafter.

Permanent Settlement.

A permanent settlement of the land revenue is not open to the serious objection which exists to the scheme of redemption, that to capitalize the income which the State receives from the land would deprive it in future years of a source of revenue on which it can in all circumstances confidently rely, and than which none is more easily collected or more willingly paid.

The land revenue of India, as of all eastern countries, being regarded less as a tax on the landowners than as the result of a joint proprietorship in the soil, under which the produce is divided, in unequal and generally undefined proportions, between the ostensible proprietors and the State, it is a matter of justice and of security for the landowner that the respective shares should, at a given period, or for specified terms, be strictly defined and limited. The right which the Government possesses to participate in the advantages which accrue from the general progress of society has hitherto been recognized by periodical adjustments of the share which belongs to the State, or rather of its value in money.

It is anticipated by the advocates of a permanent settlement that a general feeling of contentment would be diffused among the landholders, who would become attached to the Government by the strongest ties of personal interest; and that, sufficient inducement being thereby afforded to them to lay out capital on the land, the wealth of the country would be so much increased as to enable it to bear, by means of indirect taxes, any additional charge which might fall upon the Government in consequence of the augmented expense of administration.

Entertaining no doubt of the political advantages which would attend a permanent settlement, and considering it most desirable that facilities should be given for the gradual growth of a middle class connected with the land, without dispossessing the present proprietors and occupiers, Her Majesty's Government recently decided to sanction the redemption of the revenue only in cases where lands are required for dwelling houses, factories, gardens, plantations, and similar purposes, but to authorise a permanent settlement being effected throughout India at the present or revised rates, in all districts or parts of dis-

tricts in which no considerable increase can be expected in the land revenue, and where its equitable apportionment has been, or may hereafter be, satisfactorily ascertained.

In proceeding to carry this measure into effect, it was decided that, where agriculture is backward, population scanty, and rent not fully developed, permanency of settlement must be refused; and that, on the other hand, where the estates are so fairly cultivated, and their resources so fully developed, as to warrant the introduction of a permanent settlement at the existing rates, it may at once be granted.

There are, however, many districts which comprise a large number of estates sufficiently cultivated to justify a permanent assessment, while the resources of a considerable proportion of the land are so imperfectly developed, that a settlement could not be effected on its present assets, without entailing a prospective loss to the State. After a careful consideration of the various plans suggested as suitable for adoption in this class of districts, Her Majesty's Government authorized an immediate settlement, in perpetuity, after revision, for all estates in which the actual cultivation amounts to 80 per cent. of the cultivable area.

Estates of which the resources are so undeveloped that they are unfitted for a settlement in perpetuity, will be assessed for a term, the duration of which it may probably be deemed expedient to limit to 15 or 20 years, but which at any rate must not exceed 30; and no pledge will be given to the proprietors as to the course which the Government of the day may think proper to adopt at the expiration of that period.

The right of the Government to a share of the produce of mines will be reserved, when the permanent settlement is carried into effect.

In order to provide for the just claims of the State to a portion of the advantage which the owners of estates may derive from the application of canal water, it was directed that, when, in the opinion of the officers of the Settlement and Irrigation Departments, the assets of an estate would, on canal irrigation being carried to the full extent at present contemplated, exceed the existing assets in a greater proportion than 20 per cent., the assessment should be settled on the present value, for a term not exceeding 30 years, as in the case of other estates in which the cultivation is not fully developed.

Sale of Waste Lands.

In October 1861, a Resolution was published by the Governor General in Council, prescribing certain rules under which the sale of waste lands, in lots not exceeding 3,000 acres each, was to be carried into effect over the whole of India, when application should be made to the Government for the grant of any such tract. In two points of importance those rules were altered by Her Majesty's Government, who gave directions that the survey of the land should always precede the sale, and that, instead of a uniform price being fixed of 5 *s.* an acre for uncleared land and 10 *s.* an acre for ground already freed from jungle, the allotments being advertised for sale by auction only in the case of more than one person applying for the same spot, the course should be invariably followed of putting up the lands to auction, at a minimum upset price, and of selling them to the highest bidder.

Passing from these general questions relating to the land revenue, an account will now be given of the progress which has been made by each province during the year 1864-65.

Bengal.

In the Lower Provinces of Bengal, the demand of the Government amounted to about 12,000 *l.* more than had been demanded in the preceding year. In consequence, however, of the damages sustained in the district of Midnapore from the cyclone of October 1864, it was found necessary to vest the Commissioner of the Division with large discretionary powers to postpone the enforcement of the revenue instalments, so as to give the landholders an opportunity of retrieving their position, and the result has been that the sum collected within the year, namely, 3,803,155 *l.*, exhibits a falling off to the extent of 241,086 *l.* as compared with 1863-64, the outstanding balances to be recovered in the following year being, of course, increased to a corresponding amount.

In 1859, an Act (No. X.) was passed by the Government of India, amending the law relative to the rights of cultivators regarding the occupancy of land, and to the recovery of arrears of rent; and this Act was supplemented in 1862 by

by another (No. VI.) passed by the Bengal Council. Suits arising under these Acts, between the landholders and their tenants, are disposed of by the Collector or revenue officer, subject, except in minor cases, to an appeal to the Judge of the District, or to the High Court. The total number of such suits instituted in 1864-65 was 125,854, whereas, in 1863-64, they amounted to 133,819. On the other hand, the execution of decrees has been much more prompt, for, with nearly 8,000 suits less, 65,207 decrees were executed, as compared with 54,619 in the preceding year, and nearly 3,000 cases less were pending at the close of the year than in 1863-64.

Formerly, in the event of a landholder in Bengal failing to pay the revenue to the Government, the estate was advertised to be sold by auction, but he was allowed, at any time previous to the day of sale, to pay the arrears and stop all further proceedings. As, however, it was found that advantage was taken of this state of the law by the landholders, who delayed the payment of their revenue to the last moment, and permitted their estates to be advertised for sale, secure that, on the morning of the auction, they could pay the money and retain possession of their property, it was, in 1845, enacted that a day should be fixed as the latest on which the arrears of revenue would be received, and that, if payment had not then been made, the estate should invariably be sold by public auction; and the effect of this change in the law was materially to reduce the quantity of land advertised for sale.

In 1859 it was found necessary to pass a further Act, in order to enable sharers in estates, absentee landholders, and under-tenants, to protect themselves from injury by the failure of their partners, agents, or landlords, to pay the revenue at the prescribed time; and, during the year 1864-65, 2,291 applications to benefit by this privilege were tendered.

It was determined in 1859 to sell the proprietary rights of all the estates in Bengal which are under the management of the Government, the object of the measure being, in the first place, to produce a sum of money for the use of the State, and, secondly, to relieve public officers from the business of managing the estates. The amount received on this account in 1864-65 was 63,578 *l.*; but of this sum more than half, namely, 38,100 *l.*, must be deducted on account of an estate in the Backergunge Sunderbunds, the sale of which has since been cancelled on the solicitation of the purchaser. There remain for sale 1,755 whole estates and 19 shares, which are expected to fetch, when sold, about 605,000 *l.* The most valuable estates have been disposed of already; and those left are not likely to produce more than six or seven years' purchase of the annual revenue assessed upon them.

Under the rules for the lease and sale of waste lands, 263 lots were sold and 81 leased during the year 1864-65. The entire number of grants made, up to the 30th of April 1865, was 518, and the sum already realised 40,713 *l.*, leaving 220,934 *l.* to be paid by instalments hereafter. At the same date 334 lots had been leased, the eventual maximum revenue of which would be 13,337 *l.*

On the great demand for waste lands arising, in 1863, under the new rules, it was found that the rule requiring the survey and demarcation of waste lands as imperative preliminaries to their sale, would check all sales for a long time, and impede the extension of tea-planting; and it was, therefore, decided that the preliminary survey should for the present be dispensed with in Assam, Cachar, Sylhet, and Darjeeling, and that applicants should be only required to submit a rough plan of the lands applied for, showing the direction of the boundaries, the length, breadth, and area of the lands, and any existing landmarks which might serve to identify them, and that they should receive in return a provisional title deed in anticipation of survey, after entering into an agreement to abide by the decision of the collector, in respect both of the boundary of the lands and the final adjustment of the purchase money, holding the grant, in the meantime, hypothecated for the amount. This concession has now been extended to the hill tracts and other portions of Chittagong, with a view to remove every impediment to the extension of tea-planting in that district.

An objection was raised by the Landholders' and Commercial Association of Bengal, with reference to certain grants applied for in Cachar, to the condition that the applicant should abide by the decision of the collector in respect of the boundary of the lands allotted to him; and it was stated that such an

agreement rendered the ultimate area and boundaries of the grant so uncertain that it was impossible to deal with it, either in the way of sale or as security for a loan. In reply, it was explained to the Association, that without such a stipulation the Government could not accord the privilege of possession in anticipation of survey, and that it was a question for the consideration of each applicant whether it was the more advantageous for him to wait until the survey should be completed, or to take possession of his grant with the uncertainty involved in the provisional title-deed. It was pointed out that, while the latter alternative would probably commend itself to those who were taking up land, *bonâ fide*, for cultivation, it would very likely be better for those who obtain lands merely for the purpose of reselling them at a profit, to await the completion of the survey. To show the necessity of the condition, it was explained that two cases had come to the notice of the Government where grants, of which the estimated area, as applied for, was 200 and 1,936 acres, were found on survey to contain 1,500 and 15,000 acres respectively; so that it obviously was necessary that the Government should have some security that, in complying with an application for a few hundred acres, it was not in fact alienating its rights in many thousands of acres, and possibly, at the same time, infringing the rights of neighbouring holders.

In order to encourage applications for the grant of land in the Sunderbunds and Chittagong, it was determined so far to modify the new rules as to allow to the applicants, in all cases in which, after due advertisement, there was no competition, the option of taking the land under the new rules, or, as under the old rules, without payment, but subject to the former conditions as to clearance, and after a certain rent-free period, to a gradually increasing assessment, up to a maximum of 9*d.* per acre, redeemable at any time at the option of the holder.

A project for the clearance and cultivation of the unappropriated waste lands of the Sunderbunds by joint stock agency was brought forward by Mr. F. Schiller and others. To give all due encouragement to the scheme, the Government of India consented to waive the rules, so far as to sell by auction in one lot the Sunderbund lands in the 24 Pergunnahs, comprising more than a million of acres, at an upset price of 5*s.* an acre. Owing to an unfortunate misapprehension of the intentions of the Supreme Government, the prospectus of the Company was issued with an announcement that the Sunderbund lands in Jessore would also be disposed of by a similar sale in a single block. The mistake was at once corrected, but the whole scheme fell to the ground for the time. Mr. Schiller subsequently applied for the grant of certain lots of land in the Sunderbunds, containing together about 50,000 acres; and the rules were relaxed in his favour, in order to allow the whole to be advertised and put up for sale in one block.

orth-Western ovinces.

In the North-Western Provinces the average rainfall during 1864-65 was 39·3 inches, and the season was generally favourable. The demand on account of the land tax was about 1,300 *l.* less than in 1863-64; this small decrease is mainly attributable to the grant of jageers to Rajahs Sheoraj Sing and Jeswunt Rao, and to the appropriation of lands for the railway. The amount collected within the year was 4,035,374 *l.*, or 98·64 per cent. of the demand; and the outstanding balances have been reduced from nearly 500,000 *l.* to about 332,500 *l.* The number of processes issued against defaulters, 105,942, was rather less than in the previous year; and in only 35 cases was it found necessary to resort to sales, sequestrations, or similar legal measures, on account of inability to pay the land tax, a fact which, coupled with the very large per-centage of collections, shows conclusively the lightness of the Government demand.

The number of suits between landlord and tenant instituted under Act X. of 1859 and XIV. of 1863, has increased from 45,350 in 1863-64 to 54,409 in 1864-65. This is chiefly attributable to the facilities afforded to the people by the courts of the Native revenue officers, which continue to be popular.

In Ajmere and Mhairwarra the demand for land revenue was 38,490 *l.*, of which all but 143 *l.* was realized. The fall of rain was scanty; but, the necessary repairs to tanks and other irrigation works having been completed before the rains set in, the crops were generally good. Prices, however, remained high, in consequence of the scarcity prevailing in neighbouring districts.

Some complicated claims to proprietary right have been adjusted in Seharunpore; and the assessments in this district, as well as in Mozuffurnuggur and Boolundshuhur

[redacted]oolundshuhur, are being revised and adapted to a settlement in perpetu[redacted]. Measures are also in progress for a settlement in Bijnour, Budaon, Furruckabad, Etah, Jhansi, Jaloun, Lullutpore, and Goruckpore. In Meerut the village measurements are nearly finished, and data are being collected for the preparation of assessment rates. The Gurhwal settlement has been completed, and the result is to raise the assessment from 6,818 *l.* to 9,562 *l.* In Kumaon the measurements are being made, and in Bareilly and Azimghur operations are about to commence. Rather more than 130,000 *l.* has been spent on the settlements already, and it is calculated that about 230,000 *l.* more will be required to complete them.

In the spring of 1864 the crops in Oude were generally excellent, owing to the abundant rainfall of 1863; but the rains of 1864 were perhaps the most unfavourable ever known in Oude, setting in very late, and breaking up very early, just when there was the most pressing need for water to admit of the transplanting of the rice. Oude

The autumn crops were, consequently, extremely light, and rice was an almost total failure everywhere, particularly in Sultanpore and the Trans-Gogra districts. In these circumstances, it is satisfactory to find that, of a total demand of 1,040,366 *l.* for land revenue, all except 8,739 *l.* was paid before the close of the year, and only 130 *l.* proved irrecoverable. The eastern districts suffered most from the drought; but the price of all agricultural produce rose greatly, and this made up to some extent for the partial failure of the autumnal crops, and assisted landholders in meeting their engagements.

On the annexation of Oude, instructions were issued to the Chief Commissioner, in February 1856, that a summary settlement should be made with existing occupants for three years, and that the question of determining proprietary rights should be held in abeyance. This settlement was carried out as nearly as possible on the model of that which had been adopted in the North-Western Provinces; and it was feared that, in their anxiety to promote the welfare of the great body of the agricultural classes, the revenue officers in Oude might, in some instances, have ignored the rights which had been acquired by the great landed proprietors.

Accordingly, in the reorganization of the country which followed the suppression of the rebellion in Oude, directions were issued for the restoration of those ancient rights, as well as for the encouragement, by liberal remissions or advances, of agricultural operations throughout the country. Care was, at the same time, taken to preserve the privileges of under-proprietors; and it was ordered that, when a regular settlement should be made, the proportion of the revenue payable by the intermediate or subordinate holder to the talookdar should be fixed after careful survey, the talookdars themselves receiving title-deeds to confirm their proprietary rights, subject to certain moderate assessments to be fixed at the termination of the three years' summary settlement.

The effect of the revised assessment, which is being carried out throughout the greater part of the province, is apparent in the increase of the Government collections of revenue, which were 36,809 *l.* in excess of those for the previous year; and, in future, the increase will be much more considerable.

This material enhancement of the demand of the Government has not unnaturally led, in some cases, to a demand on the part of the landlord for increased rents, which is ocassionally contested by a suit for exaction. It is, however, expected that, when the Settlement courts have disposed of the claims to proprietary rights, which form the real, if not the ostensible, ground of half the suits of exaction and ouster, the number of such suits will greatly diminish.

The officers of Government have been instructed to act, as far as possible, rather as mediators and umpires than as judges; many claims to sub-settlement have been admitted, which will considerably mitigate the hardship which some of the village proprietors have experienced of late years; and the Chief Commissioner has been informed that the Government concur in his opinion that proprietary rights did exist under the Native rulers, and were recognised by usage and social law, although they were often arbitrarily invaded and usurped, and therefore that the holders are entitled to benefit by any advantages which may be developed by the improved system of administration introduced by the British Government.

Subsequently, a question has arisen whether some alleged rights of *occupancy* on the part of classes of ryots did or did not exist at the time of the annexation, and an inquiry into the matter has been instituted, in order that the cultivators may not be deprived of any privileges to which they may be entitled, but special measures have been taken to guard against the commission of any act which might lower the position of the talookdars in the eyes of the country.

The number of processes issued by the Government against revenue defaulters in 1864-65 was 22,114, as compared with 16,308 in 1863-64; the increase is partly attributable to the unfavourable character of the season. As usual, there were no farms or sales for arrears of revenue.

The proceedings of the Honorary Assistant Commissioners, who exercise revenue as well as judicial powers, usually limited to their own estates, are most carefully watched; and the general result seems to be, that their work is done very creditably, and that their courts are popular.

The summary suits between landlord and tenant have risen in number from 18,810, to 23,387; but the increase is principally on suits for rent, which was to be expected in a bad season. The condition of the agricultural classes is rapidly improving; fresh lands are being constantly brought under cultivation; and sugar, to which the soil of Oude is peculiarly adapted, is being extensively introduced.

Some doubt has arisen as to the bearing of the law on the cases of talookdars who hold a mortgage of villages, in respect of which no reservation was made of the right of the original proprietors to claim redemption. The matter has, however, been happily set at rest by the just conduct of the talookdars themselves, nearly all of whom have signed an agreement not to plead their grants in bar of claims to redeem mortgages.

The management of the estates of minors is very creditable to the district officers, by whom great exertions are made to pay off debts and effect improvements, as well as to make favourable investments of the surplus funds when any are available. The estate of Muhewa, paying 4,600 *l.* per annum to the Government, came under the Court of Wards in 1864-65; and a considerable estate was purchased, at a cost of 22,500 *l.*, for the young Rajah of Mahmoodabad.

Oude was not the only province which felt the effect of the irregular rainfall in 1864-65. In the Punjab much less than the usual quantity fell during the rainy season, and scarcely any in the autumn, while a more than ordinarily heavy fall took place in the spring. The result was, that the yield of both harvests was below the average, but this was made up to the agriculturists by the high prices which their products commanded; for, although traders sustained a serious loss from the great fall which took place in the price of cotton and grain, it did not occur till most of the landholders had disposed of their produce at a large profit. A considerable, and, as it afterwards appeared, excessive, amount of grain was exported to Sind from the Punjab; and, while the demand lasted, high prices were obtained in the districts which had the command of river communication with Sind, and this influenced, indirectly, the price of grain in other districts also.

The receipts from land revenue in 1864-65, which amounted to 1,894,188 *l.*, showed an apparent diminution from that of 1863-64; but the latter was unduly swelled by the proceeds of the confiscated district of Bullubghur, which had for some years been held in deposit, and were then brought to account. The increase, as compared with the year 1862-63, is 29,689 *l.*, which is the more satisfactory, as it is entirely due to the augmentation of the miscellaneous revenue derived from the land. The assessment of land tax, on the other hand, has steadily decreased, owing to two causes; considerable reductions have been made in the Government demand, in tracts affected by famine and inundation, such as Delhi, Goorgaon, Dera Ismail Khan, and Bunnoo, where much damage has been caused by river action or by the flooding of lakes; and, in districts which, like Hissar and Jhelum, have undergone revision of settlement, the demand has been reduced to one-half of the net produce, instead of two-thirds as formerly.

In corroboration of the testimony which is received from every quarter of the Punjab as to the moderation of the land tax, it is satisfactory to find that the sum collected within the year amounted to 99 per cent. of the demand.

In

In the district of Dera Ghazee Khan, a remission of revenue to the extent of 2,487 *l.* was authorised, in consideration of the people assisting, by their own labour, to clear out the inundation canals; and as, under the old system, a larger outlay would have been incurred for paid labourers, there is no actual loss to the State. With this exception, the irrecoverable balances are inconsiderable, and are attributable almost entirely to inundations in the Delhi, Hissar, and Derajat divisions.

The number of regular revenue suits between landlords and tenants fell from 32,065 in 1862-63 to 30,977 in 1864-65; their total value amounted to 80,610 *l.*, and the average of costs was 9 per cent., or 2 per cent. less than in the previous year. The summary suits also showed a diminution from 12,462 to 11,439, while the number of appeals from the decision of the revenue officers increased from 8,514 to 9,013.

In the Central Provinces agriculture flourished during 1864-65; although the harvests in many districts were not good, the yield of produce was fair, taking all crops together, and the prices high, wheat fetching 64 *s.* a quarter in parts of the Wurdah Valley district, where the average throughout the year was about the same as that which ruled at Delhi and Agra in the famine years of 1860 and 1861. There was enough not only to support the population of the country, but also to succour neighbouring provinces, and some 35,000 tons of grain are ascertained to have been exported across the frontier. Central Provinces

The prices of agricultural produce in the Central Provinces are now at least double those of 10 years ago, and treble the prices of 20 years since. Meanwhile, the tenants and cultivators have not had their rents raised in proportion to the enhanced value of their produce; while the landlords have profited by the increased proceeds of their own homestead farms, which are usually among the choicest portion of their lands.

As counterbalancing the profit thus accruing to the agricultural interest from what they have to sell, must be set the increased price of what they have to buy. The cost of clothes and wood is much higher now than formerly; although over 50,000 head of cattle have been imported into the Central Provinces during the year, and their price has, in consequence, fallen 20 per cent., it is still four times the rate of former days; and, in the cotton-picking season, the growers were offering 1 *s.* a day to a labourer, and still had great difficulty in getting their work done.

The Government demand on account of the land tax has risen from 556,468 *l.* in 1863-64 to 599,967 *l.* in 1864-65, and the collections from 546,605 *l.* to 588,136 *l.* Every year there are certain items on the rent-roll which, from some circumstance or other, never actually fall due; and, if these be deducted, it will be found that, of the realisable demand, 99·92 per cent. was collected, and this with very little resort to coercive processes.

The work of the regular settlement, which is mainly being carried out on the system of revenue survey adopted in Bombay, has been vigorously prosecuted in 15 districts, comprising four-fifths of the Central Provinces; and the land tax of 6,340 villages or estates, amounting to 159,432 *l.*, has been assessed during the year, the net result being an increase of 10,283 *l.*, or 7 per cent. on the amount which came under revision. The new assessment has everywhere been accepted by the landholders, who individually have admitted to the Chief Commissioner its fairness and moderation, and in durbar assemblies have openly spoken to the same effect.

In some places the former assessment was made when the land was comparatively uncultivated; and, in consequence of the vast improvement which has taken place, the tax has now to be raised. The increased demand is not always proportionate to the increased production; but some large augmentations have been made. In Seonee the percentage of increase has been 55; in Hoshungabad 43; and in Baitool 32; yet the assessment now falls at the rate of only 9 *d.* per cultivated acre. In the newly settled districts generally the incidence of the land tax ranges from 7 *d.* to 1 *s.* 6 *d.* for each acre under cultivation, which does not represent more than from an eighth to a twelfth of the value of the gross produce. The average rate, 1 *s.* 1 *d.* per acre, is low, when compared with those which obtain in North-Western India; but the scarcity of labour, the comparative sparseness of the population, and the past fiscal history of some of the districts will, in a great measure, account for this.

Although, under this settlement, addition to the land revenue cannot be expected for 20 or 30 years, at the expiration of which time there will no doubt be a really fine increase, yet in other ways the yield to the Government will rise greatly, even within that period. For, while a fair margin of waste, according to proved right or to possession, and in proportion to cultivation, has been assigned to the landholders and included in the assessment, all other waste lands have been carefully excluded. All claims to unoccupied lands have been scrutinized, and, when necessary, the right of the State has been enforced. Many thousands of blocks of land, containing about 2,500,000 acres, have thus been specifically marked out, after inquiry, as belonging to the State, and as being available either to be sold under the rules to capitalists, or to be let on cultivating leases. As yet, only 18,000 acres have been sold in the last two years; but many profitable leases for grazing or cultivating will no doubt be effected. Registers, with full descriptive details, of all waste lands available for sale, are being prepared for publication.

The rights of the people in the soil have now, by the proceedings of the settlement, been defined and affirmed for nearly the whole of the country. The proprietary tenures in more than 25,000 villages or estates have been formally declared, and more than 11,000 conflicting claims to such tenures have been adjudicated. Tenant right also has been considered, with regard to the actual position of the tenantry, and the just interests of the landlords; during the year 1864–65, upwards of 12,000 cases of inferior proprietorship have been recognized; the status of 129,536 tenants with the right of occupancy under Act X. of 1859, and the rent payable by them, have been ascertained and recorded; and in 210,755 cases, the agreement of the tenant-at-will with his landlord has been registered. Some 22,000 villages or estates have been mapped out, field by field, and 21,000 square miles have been professionally surveyed.

The fruits of these measures are already apparent in the improved temper and disposition of all classes. It is not easy to bring home to their minds the advantages, unprecedented in Central India, which are thus secured to them; but the Chief Commissioner has, in the course of his tours, assembled the landholders in every district, and explained to them that the land is theirs, not merely for the term during which the assessment is fixed, but permanently and absolutely to sell, mortgage, or otherwise dispose of, the only condition being the payment of a moderate land tax assessed for periods of 20 or 30 years. As a proof that this position is becoming understood, there have been sales and mortgages already, not so numerous as to indicate distress anywhere, but in such moderate numbers as might be expected from the creation of facilities for conveyance of perfect titles; the sums fetched by the land have, however, been very low.

The number of cases decided in the Revenue Courts during the year, under the Law of Landlord and Tenant, was only 5,220, and the petitions for execution of decree did not exceed 1,219.

The territory comprised in the Hyderabad Assigned Districts, or East and West Berar, was, in December 1864, re-distributed, and formed into four districts instead of two. The average area of each is 4,500 square miles; but, from the circumstance that the two districts newly established are cut up by numerous ranges of hills, and in many parts thinly inhabited, the share of the revenue contributed by them is not in proportion to their size.

The population is roughly estimated at 1,530,981; and the area of cultivated land has, in consequence of the very high prices of all agricultural produce, increased from 3,670,430 acres in 1863–64, to 4,036,900 in 1864–65.

The demand for land revenue was 381,602 *l.*, which shows an increase of 26,104 *l.* on that of the previous year. The collections fell short of the demand by only 10,949 *l.*, and three-fourths of this sum has subsequently been realised.

The harvest was not good, owing to the insufficient fall of rain, which was less than 28 inches, the average being between 30 and 35. It is estimated that 67 per cent. of the cultivated land is occupied by grain, 30 per cent. by cotton, and 3 per cent. by oilseeds. The price of grain in 1864 and 1865 was three and four times the average for the 12 years from 1850 to 1861, but it has now become somewhat cheaper, in consequence of the great fall in the price of cotton.

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The survey is proceeding satisfactorily, though somewhat slowly, and measures are in course of execution for expediting its progress. The results, so far, are encouraging; the total cost has been 22,395 *l.*, while, in the two talookas of Mulhapore and Balhapore alone, the annual gain to the revenue is 10,695 *l.*

British Burmah.

In several parts of British Burmah, and especially in the Tenasserim division, the crops suffered severely, in the early part of the sowing season from inundation, and towards the latter part from paucity of rain. Owing to this, and to the reduction of the rates of assessment in the Martaban district, the increase of land revenue, which has been considerable in Pegu and Arracan, has not, throughout the province, been commensurate with the increase of cultivation. Including sayer and miscellaneous receipts, however, the revenue rose from 525,340 *l.* in 1863-64 to 561,397 *l.* in 1864-65.

The entire area under cultivation was 1,767,093 acres, or about 60,000 more than in the preceding year, rice, the staple product of the country, alone covering 1,470,169 acres, instead of 1,433,840 in 1863-64. The exportation of rice kept pace with the increased cultivation, and the quantity exported by sea and land exceeded that of the previous year by 76,815 tons.

The stimulus given to this trade by the high prices realised in consequence of the great demand for food in China, has apparently taught the cultivators of the delta of the Irrawaddy the advantage of holding a lease, under which they are permitted to extend their cultivation without paying additional rent to the Government; and, in the Rangoon district, leases for five years have been accepted over an area of 83,673 acres.

The rental of fisheries increased by more than 5,000 *l.* during 10 years, and the capitation tax was upwards of 6,500 *l.* higher than in 1863-64.

Straits Settlements.

At all three of the stations in the Straits Settlements there has been a slight increase in the land revenue, and the total amount collected in 1864-65 was 13,359 *l.*, against 13,260 *l.* in 1863-64.

The number of new leases issued for short periods is 445; and, in 327 cases, deeds which had been granted for the payment of a fixed sum and a quit-rent have been cancelled, and leases taken in their stead. The general failure of the crops has discouraged the peasantry, and rendered them unwilling to enter into an engagement to pay a fixed annual amount for land which, at present, is yielding scarcely any return for their labour.

Madras.

The collection of land revenue in the Presidency of Madras showed a considerable falling-off in 1864-65, the amount received being 4,184,645 *l.*, or 115,147 *l.* less than in the previous year. Nearly the whole of the decrease arose in the Kistna, Tinnevelly, and Madras districts, where the season was peculiarly unfavourable. There was also a considerable diminution in consequence of the revision of assessment in Trichinopoly, Coimbatore, and Bellary; but against this must be set the addition which resulted from increased facility in collecting the revenue, coercive process being required for the realisation of only 2,592 *l.* The area of land under cultivation was 15,838,828 acres, or 4,058 more than in 1863-64.

For a long period after the Madras territories came under the rule of the British Government, lands held as inam (a gift, or rent-free tenure), however defective in their original titles, were suffered to be enjoyed tax-free, and to descend from generation to generation, in tacit acknowledgment of the prescriptive right of the holders. In 1848, length of possession was formally recognised as a valid title to inams held without grants; but the rules laid down, though liberal in principle, were productive of vexation and injustice, as they enjoined inquiry on the occurrence of every lapse, by which means a vast extent of property was unsettled and held in abeyance, though the value of resumptions made by the Government was in most districts insignificant.

In 1859 an Inam Commissioner was appointed, and rules were laid down for his guidance, with the view of carrying out a full examination of all such claims, in order to define the rights of the Government, and to impart a feeling of security to the minds of the landowners. Under these regulations, proved possession of an inam for 50 years constitutes a valid title, and holders are allowed to convert their terminable tenures into permanent freeholds by the payment of a sum in commutation of the reversionary right of the Government. Inams held for a shorter period than 50 years, if granted by competent

authority, are likewise recognised absolutely or admitted to a compromise, and, in all these cases, as well as those granted for religious and charitable objects, a title-deed is issued to the Inamdar, specifying the terms of his future tenure, which is to secure him and his successors from further scrutiny by the Government regarding the origin of the grant. In this manner all the interest which the Government fairly possesses in these tenures is realised, and a large mass of landed property is turned to the fullest advantage, which, though free from tax, has hitherto possesssed little value.

The operations of this Commission have been diligently carried on from the time of its institution, and, with the exception of part of the district of Trichinopoly, the out-of-door work is completed. The result of the proceedings in the year 1864-65 was the settlement of an area of 657,827 acres, of the estimated value of 145,400 *l.*, from which an additional revenue of 11,041 *l.* will accrue to the Government. The number of titles confirmed from the commencement of operations up to the end of the year under report, was 339,101, involving an extent of 4,813,109 acres, the full assessed value of which was 722,142 *l.* These lands, from which the Government previously derived a quit-rent of 62,318 *l.*, have, by the proceedings of the Commission, been made to yield a further revenue of 73,408 *l.*, while the entire cost has been only 82,020 *l.*, or little more than a single year's additional return.

With the exception of Ahmednuggur, the newly formed collectorate of Kulladghee, and Canara, in which the season was generally favourable for cultivation, the fall of rain in the southern division of the Bombay Presidency was scanty, and the crops were more or less injured. In the northern division also, a partial failure of crops was experienced in Ahmedabad and Surat. The net result of the year, however, showed an increase of 106,124 *l.* over the revenue which was received in 1863-64.

An Act (No. 1) was passed by the Bombay Council in 1865, providing for the survey, demarcation, assessment, and administration of lands held under the Government, and putting into the form of a special law, in a complete state, the system which has for many years been acted upon, for the registration of the rights and interests of the occupants of such lands.

The summary settlement of claims to unadjudicated and hereditary inams has been very nearly completed, only 16 cases remaining for disposal; and the financial result, up to the 30th of April 1865. was an annual profit to the Government of 29,947 *l.*, exclusive of that arising from the operations in Khandeish and Colaba. A scheme for the settlement of terminable inams, that is, rent-free grants for one or more lives, by rendering them permanent on the holder agreeing to pay a certain assessment, was sanctioned during the year, with the view of extending to this class of holders the same advantages as regards fixity of tenure, which were conceded to those brought under the summary settlement. Out of 2,972 terminable inams, proposals were made to 1,078 holders, and accepted by 862 of them, the increased annual income, so far, being about 1,900 *l.*

The popularity of the Act (No. VII. of 1865) for the summary settlement of claims to exemption from the payment of land revenue to the Government was shown by the progress made, in 1864-65, in carrying out its provisions in the collectorates of Guzerat and the Concans. There were 191,868 villages and holdings to which it was applicable, with an annual value of 198,838 *l.*, on which a sum of 24,854 *l.* would have been realisable, if the terms had been accepted in every instance. The settlement was offered in 185,624 cases (leaving only 6,244 not yet dealt with), and in only three instances was it declined, and an inquiry into title demanded.

In 1862 an Act was passed by the Bombay Council (No. VI.), authorising the Government to take measures for enabling the petty chiefs in Ahmedabad, many of whose estates were encumbered or alienated, to effect a settlement of their debts; and, during the year under report, the advance of sums of money from the public Treasury was sanctioned, to an amount not exceeding 20,000 *l.*, the principal and interest to be repaid within a limit of 20 years. The advantages which were anticipated from this measure have been more than fulfilled; and the effect will be not merely to free the landholders from debt, and improve their estates, but to place them in a position to exercise a useful influence over the cultivators dependent on them, and to bring up their own

own children properly; while it is anticipated that there will be no difficulty in recovering the amount advanced, at the rate of a tenth part annually.

The survey operations are nearly completed throughout the whole of the Bombay Presidency. In the Island of Bombay, the preliminary measures are nearly finished for the introduction of a detailed survey on a scale commensurate with the value of the ground, which is now in many parts as costly as land in London.

In Sind the Bombay system of assessment, which is suited to the general tenure of land, and to the feelings and circumstances of the people, is being carried out, and an Act of the Bombay Council (No. 1 of 1866) has been passed, to extend to that province the formal survey law already existing in other parts of the Presidency.

There are no considerable tracts of waste land available for cultivation in this Presidency, which are not either private property, or open to any one who will take them up as private property, as fast as they can be surveyed and assessed. The system generally adopted is, to lease the land on favourable terms, subject to re-assessment at the expiration of the period; although the Government is not precluded from taking advantage of the general improved condition of the district to enhance the assessment on the conclusion of the lease, the individual is guaranteed against future increased taxation on account of any improvements he may have made by means of his own capital in his particular estate; and, before any application to take up land is complied with, the right of occupancy is usually sold by public auction. Under these rules the revenue is paid with the most exact punctuality; there is a complete transferable and heritable property in land, and the material prosperity of the country has increased in a very steady manner.

2. Forests.

The conservancy of the forests, although attended to in some parts of India, has not in all cases been treated with the care which it deserves; but, during the year 1864, the Government laid the foundation of an improved system of forest administration for all India, having for its object the careful conservation of the forests belonging to the State, and the proper development of this part of the resources of the country. The executive management of all forest business was, as before, left to the local administrations, and general principles were laid down for their guidance, the most important being, that all Government forests were to be strictly set apart and made inalienable, and their boundaries marked out, to distinguish them from waste lands available for the public.

An Act was passed by the Government of India (No. VII. of 1865), defining the nature of the rules to be made by the several local Governments, and imposing penalties in case of a breach of those rules.

The gross revenue derived from forests throughout India was, in 1863-64, 304,443 *l.*, and in 1864-65, 351,757 *l.*; and, if the cost of conservancy be deducted, the net revenue is found to have risen from 113,949 *l.* in 1863-64 to 140,820 *l.* in 1864-65.

Bengal.

In British Sikkim alone, it is estimated that there are about 105,000 acres of forest; and there are also forest lands under the superintendence of the Government of Bengal in Assam, Dacca, Chittagong, Cuttack, Palamow, and the Rajmehal Hills.

The wholesale felling of timber, which followed the introduction of tea-planting into the Darjeeling district, was most injurious to the future interests both of the planters themselves and of the general public. To prevent any further extension of the mischief, orders have been issued that all forest lands at an elevation of 6,000 feet or upwards, which have not already been sold, shall be reserved, except such portions as may be fit for building sites. A nursery for raising useful trees is to be established in the neighbourhood of the chinchona plantation, and a seedling nursery has been formed near the barracks at Jullapahar.

A great variety of trees in the neighbourhood of Calcutta having been blown down by the cyclone, the opportunity was seized of investigating a question of much moment, in connection with the laying down of a working plan of a system of forest conservancy, namely, whether the concentric rings of trees nurtured within the tropics can be relied upon as forming a safe guide for the rate of growth, as is the case in colder climates; and Dr. John Anderson has been deputed to conduct the investigation.

North-Western Provinces.

The forest tracts of the North Western Provinces are situated in the divisions of Kumaon and Gurhwal, Meerut, Rohilcund, Goruckpore, and Jhansi. In the year 1864–65, the receipts amounted to 67,148 *l.*, and the expenditure to 42,073 *l.*

In Kumaon and Gurhwal, the total area surveyed was 406,134 acres, of which more than nine-tenths were covered with the cheer or stone pine, with an average number of first, second, third, and fourth class trees, of 14·86 to the acre. The hill forests on the Tonse and other tributaries of the Jumna were also surveyed. The Government forests in Goruckpore cover an area of 127,527 acres, 116,384 of which are occupied by sal trees, with an average of 258 to the acre; and the Commissioner of the division has been desired to submit a definite scheme for the conservancy of these forests.

A license has been granted to the East Indian Railway Company to work, under the superintendence of the Forest Department, the cheer forests situated on the left bank of the Mundaknee, in British Gurhwal, for seven years, paying a royalty of not less than 600 *l.* a year; and provision has been made to guard against the destruction of any but first class trees, to preserve groves in sacred places and in the vicinity of villages, and to maintain the customary rights of the people to cut wood for building or domestic purposes.

The Rajah of Tehree has granted to the British Government a lease of the valuable forests situated in Native Gurhwal; and roads and paths are being laid out, to gain easy access to them. It is expected that these will be much used as a route into Thibet, and the inhabitants of the villages on the Jumna seem to take great interest in the operations. The outlay required in working the forests will at first be large; but there is reason to believe that it will all be repaid in three or four years.

Oude.

The survey of the forests in Oude has been completed, 252 square miles, of which 142 are covered with sal, having been marked off during the year as reserved for the purposes of the Government. Some progress has been made in clearing the trees from the noxious creepers which coil about them; and strict orders have been issued by the conservator against the cutting of saplings of the reserved woods; the villagers, however, being allowed every facility to cut inferior woods and trees.

The financial results of the three years since the commencement of operations show an excess of receipts over expenditure, amounting to 5,428 *l.*, which is not unsatisfactory when it is considered that no timber has been felled during the last year; that the forests have been benefiting by the repose which they much needed, and that the unavoidable expense of a preliminary survey had to be incurred.

Punjab.

In the Punjab operations have been carried on, with more or less success, upon the banks of the five rivers, but deficiency of water prevented the logs from being brought down the Ravee and Beas, and in the Sutlej division the illness of the deputy conservator materially interfered with the progress of the work. From the Chenab a quantity of timber has been despatched to Mooltan to try the market at that place, and inquiries are being made to discover if deodar wood will find a profitable sale at Kurrachee. In the Nainsookh or Jhelum Division the results were very favourable.

The total receipts in the year amounted to 32,917 *l.*, and the expenditure to 22,793 *l.*, while the stock of timber remaining in depôt is worth 13,810 *l.*

Leases of the forests in their territories have been granted by the Rajahs of Chumba and Bussahir; and it is believed that there will be no difficulty in obtaining a sufficient quantity of timber to furnish sleepers for the Delhi railway.

Wood is the only fuel that can be relied upon in the Punjab for a long time to come, the nearest coal being too distant to cover the cost of carriage. It is calculated that the requirements of the railway and steamboats will amount to 1,100,000 maunds* of firewood annually, and that the supply in the preserves, of grass and brushwood, is only sufficient for about three years' consumption, while ten years is reckoned to be the shortest period in which reproduction can take place. Strict reserves are, therefore, in course of formation, and other measures of conservancy and improved management are being adopted.

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* A maund is 82⅔ lbs. avoirdupois.

Central Provinces.

In the Central Provinces the revenue derived from the royalties on valuable kinds of timber, and from the duties levied on the common sorts of wood, fruits, grasses, and other articles of forest produce, amounted in 1864-65 to 6,433 *l.*

A code of forest laws has been published, and tracts, amounting to an aggregate area of 2,880 square miles, have been reserved, as appearing the most likely, from their productive powers, the superior quality of their timber, or other natural advantages, to repay careful and thorough investigation. The area of the unreserved forests is about 11,000 square miles; and there are, besides, not less than 10,000 square miles of timber-bearing tracts belonging to private individuals.

Nearly all the reserved portions have been examined, and their boundaries decided on; and several have been marked off from the surrounding wastes by permanent land-marks.

The Chief Commissioner has been instructed to obtain leases of contiguous forests from Holkar and the Jagheerdar of Chandgurh, as, when the railway is opened, the resources of the country will be fully taxed to supply the demands of the Malwa, Khandeish, and Deccan markets.

A practical gardener and forester has been lately despatched from England for the purpose of superintending the teak plantations which are being formed on the banks of the Nerbudda and Taptee.

Hyderabad Assigned Districts.

The conservator of the Central Provinces has examined the Berar forests, and recommended the adoption of a new system of management. In consequence of this change, the usual contracts for levying a tax on teak wood brought to the market have not been sold. The best teak forests are carefully preserved.

British Burmah.

A large increase has taken place in the gross forest revenue of British Burmah, which rose from 80,983 *l.* in 1863-64 to 93,407 *l.* in 1864-65. The surplus of receipts over charges was 67,300 *l.* in the latter year, whereas in 1863-64 the net profit was not more than 52,992 *l.* This improvement is due chiefly to seignorage on the large quantity of foreign timber taken out by the owners from the depôt near Moulmein for export. In forest produce, which consists of bees-wax and birds' nests, there has been a slight decrease.

The number of logs brought out of the forests in the year was only 18,328, instead of 30,615 in 1863-64, but this decrease is partly attributable to the water of the Sittang having run out a month earlier than usual, in consequence of the operations which were being carried on to deepen and shorten the channel.

From the forests worked by contractors only 7,181 logs and sleepers were received at Rangoon; 5,880 of the finest logs remained in the creeks and rivers, owing to the sudden cessation of rain at the end of September, a month earlier than usual, and just at the time when timber is being brought down. The logs received as drift timber amounted to 9,042, and 114,079 logs of teak were imported from foreign territories, besides 29,019 pieces of converted timber.

In all the divisions forest operations were vigorously carried on by the officers of the Government, and the number of trees girdled during the year was 26,958. All the plantations were visited and thinned, and two large new plantations, in the Tharrawaddee and Sittang districts, of 30 to 50 acres each, were sown, to test the question of the expense which must be incurred for raising teak on a large scale.

In Arracan the most valuable timber is the *inga xylocarpa*, termed iron-wood from its exceeding hardness; 94 licenses were issued during the year for felling trees, and the number actually cut down was 4,476, on which a seignorage of 457 *l.* was paid. The wood is valuable for railway sleepers.

Straits Settlements.

The sale of permits to cut timber in the Government forests of the Straits Settlements showed an increase at Penang and Malacca, but a falling off in Singapore, where the ground has long been cleared of almost all valuable timber, the result, on the whole, being an excess of 70 *l.* in the amount received in 1864-65 over the proceeds of 1863-64.

Madras.

The forest conservancy in Madras, which has for some years been under the care of a special department, produced in 1864-65 a net profit of 13,391 *l.*, and the value of timber in depôt on the 30th of April 1865 was 64,770 *l.*, or 6,883 *l.*

more than at the beginning of the year. The growth of the teak in the Nellumber plantations is described as being superb.

Measures have been taken for the conservation of the valuable forests which exist in the Ganjam district, and for keeping within bounds the pernicious practice of cultivation by coomery, which consists in burning down trees and spreading a coarse kind of grain in the ashes, the result, after a few years, being the growth of a low noxious jungle, very detrimental to the health of the neighbourhood.

The want of fuel being seriously felt in Nellore, the formation of a plantation of 200 acres has been sanctioned as an experiment, in order to ascertain what kinds of wood are best adapted to the purpose, and it is hoped that the example may have the effect of stimulating private individuals to undertake the cultivation.

Bombay.

In the Presidency of Bombay also, the Forest Department is of old standing; during the year under review the receipts exceeded the expenditure by 44,173 *l.*, and there is reason to hope that the demarcation of forests now in progress will eventually effect still more favourable results.

No restrictions are placed on the rights of cultivators to hold property in teak, but, on the contrary, encouragement is given to the growth of timber by private persons.

The administration of the forests in Sind was satisfactory, and the receipts showed a net increase of 3,106 *l.* over those of the previous year. The demand for firewood, both for the towns and for steam requirements, has been augmented very considerably, showing the absolute necessity of husbanding the resources so as to keep up a constant supply.

In Khandeish and Sattara measures were adopted for the purpose of forming Government reserves of firewood, by which means it is hoped that the inhabitants of those provinces will gain the blessing of a regular and abundant supply of fuel.

3. ABKAREE.

The abkaree or Excise revenue is derived from the duty imposed upon all spirits, intoxicating drugs, and opium, consumed in India. In 1864–65, it amounted to 2,224,036 *l.*, which is an increase of 163,766 *l.* on the sum realised in the preceding year.

Bengal.

The amount obtained in the Lower Provinces of Bengal was 689,083 *l.*, of which 170,519 *l.* resulted from the sale of opium at the Government Treasuries.

The cultivation of the poppy in Assam being found to interfere with the supply of labour for the tea plantations, and there appearing to be no reason why an exception should be made to the general system of taxing the consumption of opium in other parts of the Presidency, it was determined, in 1858–59, to prohibit the growth of the plant, and to supply the wants of the district by the sale of opium at the Government Treasuries. The quantity disposed of in 1864–65 was very slightly in excess of that sold in 1863–64, but, the price having been raised from 28 *s.* to 40 *s.* the seer (about 2 lbs.), the net receipts from this source increased from 57,739 *l.* to 87,368 *l.*

The consumption of ganjah, or hemp, of which the young flowers and leaves are dried and pounded for smoking, has fallen from 10,520 maunds in 1863–64, to 9,072 in 1864–65; but, in spite of this large decrease, the revenue derived from the drug rose from 76,030 *l.* to 78,108 *l.*, in consequence of the enhancement of the tax.

The proceeds of the duty levied on spirits and minor articles showed a decrease of 14,388 *l.*, owing to the further extension of the system adopted in 1859–60 of imposing a fixed tax on every gallon of spirit actually brought into the market for consumption, and prohibiting distillation except in licensed buildings, instead of the out-still system under which every retail vendor was allowed, by paying a daily tax, to manufacture upon his own premises as much spirit as he could sell. The new system tends to check smuggling, and does away with the incentive to establish new shops, and is, accordingly, opposed by the spirit vendors. The Government, however, are determined to persevere with it, as the only means of levying an equal and tangible duty on spirits, while it removes all reproach on the ground of raising a revenue by the promotion of drinking.

In

In the North-Western Provinces, the Excise revenue increased by 43,091 *l.*, owing, in a great measure, to the sale by auction of the licenses to retail liquor, the shops for which are strictly limited in number. The introduction of the central distillery system into these Provinces has proved entirely successful, and the object of obtaining the largest amount of revenue, without extending the consumption of liquor, is being realised. There has also been an increase in the receipts both from drugs and opium. North-Western Provinces.

Owing to the unfavourable season, the increase of the Excise revenue in Oude was not so great as might otherwise have been expected; yet although the scarcity of food materially reduced the means of consumers, the net receipts from spirits were 1,815 *l.* more in 1864-65 than in 1863-64. The number of retail shops increased from 4,574 to 5,038, the proportion being one shop to every 4½ square miles and 1,800 persons. The system of fees for licenses is working well, and must tend to diminish the facilities for fraud in the issue of liquor. The receipts from the sale of opium and farm of drugs showed a decrease of 2,657 *l.*, which occurred entirely in the city of Lucknow, and is attributable to the high prices of food. Oude.

The central distillery system has been established throughout the Punjab, and the receipts have increased from 72,016 *l.* to 79,864 *l.*; and almost all the local authorities assert that, while financially it has been advantageous to the State, it has proved morally beneficial to the people, by diminishing the consumption of spirits. Smuggling, however, is believed to prevail in the districts adjoining the native states. The receipts from opium and drugs were 5,352 *l.* in excess of those of the previous year. Punjab.

The testimony of the Chief Commissioner of the Central Provinces is equally strong in favour of raising the Excise revenue by still-head duty on the distillation of spirits and license fees leviable from retail vendors, instead of by farming the monopoly of the manufacture and sale of spirits and drugs. The income of the year was 93,183 *l.*, as compared with 71,846 *l.* in 1863-64, the increase being due partly to a larger consumption of spirits consequent on the growing prosperity of the population, and partly to improved administration and better adaptation of the system to the wants of the people. The change has already begun to produce a good effect on the half-civilised tribes dwelling among the hills and forests, and as yet it has not given any impetus to illicit distillation or smuggling. Central Provinces.

The duty on opium yielded 759 *l.*, or 45 *l.* less than in 1863-64. A small special duty is levied on the cultivation of the poppy, but the amount is inconsiderable.

In the Hyderabad Assigned Districts the receipts on account of abkaree in 1864-65 were 66,136 *l.* Hyderabad Assigned Districts.

In British Burmah they amounted to 99,740 *l.*, showing an increase of 17,998 *l.* on the collection of 1863-64. British Burmah.

At Singapore there was a falling off in the sale of the spirit farm, and in Penang and Malacca there was a slight advance, the result being a decrease in the Excise Revenue of the Straits Settlements, from 131,516 *l.* to 126,712 *l.* Straits Settlements.

The license and permit system was introduced into the Madras Presidency by Act III. of 1864, and the immediate effect was to reduce the revenue from 405,165 *l.*, in 1863-64, to 396,054 *l.*, in 1864-65; but the decrease is considered to be more apparent than real, and the administration of the law has been simplified. Madras.

In the Bombay Presidency the abkaree revenue increased from 321,954 *l.* to 367,323 *l.* The Excise still-head duty on spirits rose from 51,468 *l.* to 59,239 *l.*, the principal portion of the increase being due to a larger quantity of spirits having been made at the Oorun and Bhandoop distilleries in 1864-65 than in the preceding year. Bombay.

In the year 1860 a tax of 4 per cent. (1 per cent. of which was to be applied only to reproductive works) was imposed throughout India, for a period of five years, on all incomes exceeding 50 *l.* annually, and a tax of 2 per cent. on such as were under 50 *l.*, but above 20 *l.* 4. Assessed Taxes.

In 1862 an Act was passed exempting altogether incomes which did not amount to 50 *l.*; and, from the 31st of July 1863, the tax on incomes exceeding

that sum was reduced to 3 per cent. The Act under which it was levied expired on the 31st of July 1865, and has not been renewed.

The receipts from assessed taxes for 1864-65 were 1,281,817 *l.*, in lieu of 1,483,622 *l.* for the preceding year, during the first quarter of which the rate of 4 per cent. had been in force.

Bengal

In the Province of Bengal, the number of persons assessed in 1860-61 and 1861-62 was a little over 250,000, and the amounts realised in the two years were 187,786 *l.* and 635,585 *l.* respectively. In 1862-63, on the passing of the Act exempting persons whose incomes were under 50 *l.*, the number assessed fell to 64,677; in 1863-64, it was 59,927; and in 1864-65, 53,773. During the same time, the receipts have been 629,197 *l.* in 1862-63, 478,392 *l.* in 1863-64, and 385,005 *l.* in the year under report. The net receipts hitherto, in the five years, have been 1,438,492 *l.*, which is as nearly as possible 2 *d.* a head per annum, and there is a balance of 87,363 *l.* still to be recovered. The cost of collecting the tax was about 3½ per cent. in Calcutta and the suburbs, and nearly 9 per cent. in the remainder of the Province, on the sum realised.

North-Western Provinces.

In the North-Western Provinces, income tax to the amount of 207,617 *l.* was paid in 1863-64 by 41,055 persons. In 1864-65, 39,905 persons paid sums aggregating 169,059 *l.* The moral obligation to furnish trustworthy statements was generally disregarded by the natives; and only 6 per cent. of the payers were taxed on the returns made by themselves, while the amount of surcharge was nearly 300 per cent.

Oude.

The assessments in Oude during the year amounted to 24,442 *l.*, and the collections, including arrears of former years, to 29,754 *l.* The charges were only 288 *l.*, or less than 1 per cent.

Punjab.

The receipts in the Punjab were 52,280 *l.*, or 9,995 *l.* less than in the previous year; and it is anticipated that the whole demand, except about 670 *l.*, will ultimately be recovered.

Central Provinces.

The number of persons taxed in the Central Provinces was about 5,000, and 98 per cent. of the demand was realised during the year. The total amount collected in 1864-65 was 29,868 *l.*, as compared with 28,712 *l.* in 1863-64.

Hyderabad Assigned Districts.

In the Hyderabad Assigned Districts the receipts were 1,248 *l.*

British Burmah.

In British Burmah they amounted to 13,095 *l.* Many of the Chinese population of Rangoon withdrew to the Straits Settlements, in order to avoid the tax.

Madras.

In Madras, the proceeds of the income tax amounted to 147,867 *l.*, showing a falling-off of 17,093 *l.*, which is attributable to the provision that the original assessments might be reduced, on proof of the income being given, but were under no circumstances to be enhanced.

Bombay.

In Bombay, the assessed taxes amounted to 337,250 *l.*, as compared with 374,500 *l.* in the preceding year.

5. Customs (exclusive of Salt).

On the 7th of April 1864, an Act (No. XXIII.) was passed by the Government of India, making certain alterations in the Customs' duties; and further changes were effected by Acts XVII. and XXV. of the following year. The principal points of difference from the former tariff are, that the import duty on wines, beer, iron, hops, and tobacco is reduced; an export duty of 3 *d.* a maund is imposed on grain and pulse of all kinds, and that on saltpetre reduced from 4 *s.* to 2 *s.* a maund. The duty on the last-mentioned article has since been still further reduced, and is now 3 per cent. *ad valorem*. In consequence of these changes, the amount realised fell from 2,384,061 *l.* in 1863-64 to 2,296,929 *l.* in 1864-65.

Bengal.

The revenue from Customs in Bengal amounted in 1864-65 to 942,113 *l.*, against 998,839 *l.* in the preceding year. There was a decrease of nearly 24,000 *l.* on imports generally, although piece goods and twist, in spite of a diminution of the quantity imported, paid, in consequence of the increased valuations, an additional duty of 44,882 *l.* and 13,261 *l.* respectively. In exports also there was a decrease of about 50,000 *l.* on saltpetre, but the receipts on several other articles were increased, and the general result was a falling off to the extent of upwards of 33,000 *l.*

The

The competition of artificial saltpetre, which can now be produced at a rate lower than that at which Bengal saltpetre can be laid down in Europe or America, is partly the cause of the great decline in this item of revenue. The duty has consequently been reduced, as above mentioned, from 4 *s.* per maund to 3 per cent. on the value.

North-Western Provinces.

The gross collections from Customs in the North-Western Provinces during 1864-65 amounted to 60,213 *l.*, being an increase of 2,558 *l.* on the proceeds of 1863-64.

Punjab.

The receipts in the Punjab amounted to 82,619 *l.* in 1864-65, as compared with 77,849 *l.* in 1863-64. On all the Customs' lines the revenue increased materially, a point which is very satisfactory, if the depressing effect caused by the great fall in the price of cotton be taken into consideration. There is reason also to anticipate an increase of the trade in sugar, now that the inordinate speculation in cotton has been checked.

Considerable reductions have been effected by the Maharaja of Cashmere in the rates of Customs' duty levied on goods passing through his territory.

Central Provinces.

In the Central Provinces the extension of the Customs' cordon westward has necessarily led to a fall in the duty on sugar, as that which is consumed in the Lower Nerbudda Valley and Nagpore no longer has to pay tax for crossing the boundary; the sum realised in 1863-64 was 21,978*l.*, and in 1864-65, 10,194 *l.*

British Burmah.

Owing to the great addition in the quantity of rice exported from British Burmah, and to the increase in trade generally, the Customs' duties in that Province produced in 1864-65, 205,524 *l.*, instead of 170,545 *l.* in 1863-64.

Straits Settlements.

In the Straits Settlements, they increased from 368 *l.* in 1863-64, to 480*l.* in 1864-65.

Madras.

At Madras the Customs' duties realised only 203,878 *l.*, or 25,974 *l.* less than was obtained in 1863-64. The value of imported merchandise increased from 4,026,547 *l.* in 1863-64 to 4,180,248 *l.* in 1864-65, while that exported fell from 8,777,812 *l.* to 8,367,179 *l.*

Bombay.

The reduction of the Customs' duties caused the receipts on the importation of tobacco in the Bombay Presidency to diminish by 2,665 *l.*; that realised from spirits showed a loss of 12,954 *l.*; and on other articles there was a falling off to the extent of 13,830 *l.* On the exports also there was a decrease of 1,979 *l.*, due chiefly to the special exemption of grain sent to the ports of Kattywar, Cutch, and Cambay, in consequence of the famine prevailing in those districts.

The diminution of this branch of the revenue, which fell from 825,643 *l.* in 1863-64 to 791,890 *l.* in 1864-65, is, however, partly attributable to the exceptional circumstances of the latter year. The high price of cotton led to a great trade in that article, by which the duties in question did not benefit; and the accumulation of money resulting from the importation of the specie requisite to make the purchases for the home market, gave rise to much speculation in joint-stock companies, banks, and other financial schemes, to the detriment of legitimate trade.

In the Thur and Parkur Districts, a tax on the export of ghee realised 6,876*l.*, and its popularity and profitableness, as a substitute for the income tax, was unquestionable.

6. Salt.

The mode of collecting the revenue from salt varies in the several provinces of India: in some cases it is derived from a system of Government sale; in others from Excise; and in others from Customs' duties. Throughout the whole of India the sum of 5,523,584 *l.* was realised, as compared with 5,035,696 *l.* in 1863-64.

Bengal.

Owing to the inability of the Government to compete with the low price of the salt which is imported, it was recently decided to withdraw entirely from the manufacture in Bengal; and it therefore became necessary to take measures for reducing the stock of 7,500,000 maunds remaining in store.

Accordingly, in communication with the Salt Chamber of Commerce at Northwich, it was determined to sell the salt, by public auction, at an upset price, to be fixed on the 1st of July in each year, and at the rate of not more than 2,000,000 maunds on any one occasion.

The quantity cleared in the Calcutta Custom House during the year 1684-65 was 8,454,482 maunds, against 7,253,076 in 1863-64, and the revenue was proportionally enhanced. The receipts from the sales of the old Government salt, which, in the previous year, fell off by 250,517 *l.*, showed a further decrease of 89,942 *l.* There was a diminution of revenue on the clearances of excise salt to the extent of 4,631 *l.*, and no fresh licenses for the manufacture were granted during the year. On the whole, however, the proceeds of the duties on salt amounted to 2,784,547 *l.* in 1864-65, instead of 2,439,926 *l.* in the previous year.

North-Western Provinces. In spite of great fluctuations in the salt trade in the North-Western Provinces, the revenue during the year increased from 402,994 *l.* to 411,880 *l.*, owing mainly to the recently organisd preventive establishment, which, by checking contraband supplies, created an enlarged demand. The great stagnation in the saltpetre trade naturally caused a decrease of duty on the salt reduced in refining saltpetre.

Oude. The same cause operated severely against the revenue derived from the duty on salt in Oude; the gross receipts increased from 1,636 *l.* to 2,298 *l.*, but the excess of the cost incurred for the suppression of its illicit manufacture, over the receipts from licenses, duty, and saving of establishment, was not less than 2,961 *l.*; the number of seizures made was 1,136, and 1,655 persons were convicted of infringement of the law.

Punjab. Although there was a decrease of nearly 900 *l.* on the Indus salt line, the duty in the Punjab increased, on the whole, from 673,111 *l.* to 689,499 *l.*

Central Provinces. The total amount of the salt tax received in the Central Provinces did not, in 1861, exceed 70,000 *l.*; but since that time a Customs' line has been established over 600 miles of the border, and the statistics of the trade show an increase of 37 per cent. in the importation of salt in 1864-65, part of which is, no doubt, due to improved registration, but much is owing to increased consumption. The receipts for the year amounted to 142,508 *l.*, or 18,091 *l.* in excess of those of 1863-64.

Hyderabad Assigned Districts. In the Assigned Districts of Hyderabad, the salt contracts sold for 4,123 *l.*, or 971 *l.* less than in the previous year.

British Burmah. In British Burmah the manufacture of salt continues to decline, as the people find the cultivation of rice more profitable; and the import duty has been reduced to 4½ *d.* a maund, in order to equalise it with the excise. The receipts were 8,583 *l.* in 1864-65, as compared with 6,570 *l.* in 1863-64.

Madras. The revenue derived from the sale of salt in the Presidency of Madras, where it is manufactured and sold on the part of the Government, amounted in 1864-65 to 1,036,078 *l.*, which exceeded the receipts of the preceding year by 136,806 *l.*; the price remained the same, namely, 3 *s.* a maund, but the consumption increased largely, having risen from 640,261 to 747,805 maunds, a result which bears testimony to the prosperity of the people, and the beneficial effects of the improvements which have taken place in the administration and communications, and the consequent decrease in the cost of carriage.

Bombay. The trade in salt in the Bombay Presidency is largely carried on by individuals who usually bring grain down to the coast, and return laden with salt. In the year under report, so much land was under cotton cultivation, and so little under grain, that there was not much of the latter for export from above the ghauts; and this told unfavourably on the salt trade, in the revenue derived from which there was a reduction from 484,438 *l.* to 444,068 *l.* The duty, which is levied in the form of excise, was raised, in the course of the year, from 2 *s.* 6 *d.* to 3 *s.* per maund; but no change was made in the rate prevailing in Sind, where 1 *s.* a maund is charged on the quantity manufactured,

tured, and where, under a carefully watched license system, the receipts have risen from 7,353 *l.* to 10,254 *l.*

7. Opium.

The cultivation of the poppy is prohibited in Bengal, except for the purpose of selling the juice to the officers of the Government at a certain fixed price. It is manufactured into opium at the Government factories at Patna and Benares, and then sent to Calcutta, and sold by auction to merchants who export it to China.

In the Bombay Presidency, the revenue is derived from the opium which is manufactured in the native states of Malwa and Guzerat, on which passes are given, at a certain price per chest, to merchants who wish to send opium to the port of Bombay.

The poppy is not cultivated in the Presidency of Madras.

The gross revenue derived from opium has averaged during the last 10 years about 6,500,000 *l.* sterling, having risen from 5,011,525 *l.* in 1856-57 to 8,055,476 *l.* in 1862-63; the price was, however, exceptionally high in the last-mentioned year, and in 1863-64 the sum realised was 6,831,999 *l.*, while in 1864-65 it again rose to 7,361,405 *l.*

Bengal.

In Bengal, the number of chests of opium sold in 1864-65 was the largest ever offered in any one year, being 54,486 as compared with 42,619 in 1863-64. The area of land under cultivation was, however, only 801,003 beegahs (a beegah being about five-eighths of an acre), or 8,353 less than in the preceding year; and the quantity of opium made during the season was 47,777 chests, besides that sold at the Government Treasuries under the Excise system.

The gross receipts of the year were 5,255,447 *l.*, or 91,329 *l.* less than was realised in 1863-64; but the difference in the net receipts is even more considerable, owing to an increase of 46,499 *l.* in the charges attendant on the cultivation. The net revenue, accordingly, which amounted to 2,894,095 *l.*, showed a falling off from the previous year of 148,590 *l.*, but against this may be set an increase of 45,886 *l.* from the sale of the abkaree opium, which produced a sum of 158,525 *l.* in the year under report.

In 1861-62, the price paid to the cultivators, being deemed insufficient, was raised from 8 *s.* to 10 *s.* a seer. It was, however, found that the effect of this measure was to very nearly double the area of cultivation in three years, and to raise the provision from 29,358 chests in 1860-61 to 64,269 chests in 1863-64; whilst the selling price, which in 1861-62 was 137 *l.* per chest, fell to 85 *l.* in 1863-64, and the charges were considerably increased. It was, therefore, determined to reduce the price paid to the growers to 9 *s.* the seer. The further extension of poppy cultivation has been prohibited, both in Benares and Behar, and the less productive sub-agencies in Benares have been closed.

The quantity of opium produced in Oude, about 4,700 chests, was at least one-fourth less than in the previous year, the falling-off being due to the unfavourable season, as the area under cultivation was greater.

Bombay.

The number of chests of opium transmitted from Bombay to China in 1863-64 having been scarcely sufficient to meet the demand, a larger quantity, by 10,356½, chests was sent by the merchants in the following year; and, as the pass duty was 60 *l.* per chest throughout the year, the increase of the revenue under this head was 621,390 *l.*

8. Stamps.

The principal portion of the revenue derived from the stamp duties is obtained from the use of stamps in judicial proceedings. It continues to increase steadily, and in 1864-65 the total receipts amounted to 1,972,098 *l.*, as compared with 1,735,216 *l.* in the preceding year.

Bengal.

In Bengal the receipts were 600,906 *l.*, in addition to which stamps to the amount of 474,852 *l.* were supplied to the other provinces of the Presidency of Fort William.

Stamping machines have been introduced into the North-Western Provinces and the Punjab, by which the necessity for sending documents to Calcutta to be stamped will in future be avoided.

North-Western Provinces.

In the North-Western Provinces, a Commissioner of Stamps has been appointed, the provisions of the stamp law have been more generally enforced, and

and the number of prosecutions for evading it has greatly increased. The result has been, that, in 1864-65, the receipts amounted to 237,708 *l.*, showing a net increase of 10,823 *l.* on the previous year.

Oude. Care has been taken in Oude also to realise the full duty prescribed upon plaints and other legal papers, and the increase of revenue has been general throughout the Province; the receipts, which in 1863-64 showed an excess of 7,582 *l.* over the preceding year, having in 1864-65 made a further advance of 7,641 *l.*

Punjab. There is a steady increase perceptible in this branch of income in the Punjab, which in 1863-64 exceeded the receipts of 1862-63 by 8,970 *l.*, and in 1864-65 showed a further addition to the revenue of 8,349 *l.* There is, moreover, reason to expect that, when the arrangements now under consideration for increasing the number of non-official stamp vendors are carried into effect, and the penalties for evasion become better understood and more rigidly enforced, the revenue will be greatly augmented.

Central Provinces. The increased prosperity of the people in the Central Provinces, and the more widely diffused knowledge of the requirements of the stamp law, have in that division also produced the natural result of an improvement of the income from this source; and the receipts show an increase from 38,201 *l.* in 1863-64, to 50,742 *l.* in 1864-65.

Hyderabad Assigned Districts. The stamp duties in the Assigned Districts of Hyderabad rose from 15,125 *l.* in 1863-64 to 16,727 *l.* in 1864-65.

British Burmah. In British Burmah an improvement of 3,082 *l.* has arisen from the stamps on judicial and law papers.

Straits Settlements. The unsatisfactory state of commercial affairs in the Straits Settlements has produced a falling-off in the stamp revenue, which was only 25,521 *l.* in 1864-65, instead of 26,175 *l.* in 1863-64.

Madras. In Madras the receipts rose from 238,342 *l.* in 1863-64, to 269,409 *l.* in 1864-65, the increase being in part due to the introduction of the Registration Act.

Bombay. In Bombay the addition to the stamp revenue was still greater, the amount realised having been 445,688 *l.* in 1863-64, and 573,009 *l.* in 1864-65.

II. Finance.

1. Receipts and Disbursements. In the year 1856-57, immediately preceding the mutiny, the total expenditure of the East India Company, both in India and England, including the interest guaranteed by the Government on the paid-up capital of the various Indian Railway Companies, exceeded the revenues and receipts of the year by 474,208 *l.*

The enormous cost of the military operations in the years 1857-58 and 1858-59 produced a deficit in the finances of India, which amounted, in those two years, and in 1859-60 respectively, to 8,390,642 *l.*, 14,187,617 *l.*, and 10,769,861 *l.*

The cessation of war and consequent reduction of the army, and the efforts of the several Governments and administrations in India, aided as they were by the cordial support of the Home Government, and by the financial experience of Mr. Wilson and Mr. Laing, who were specially despatched from England to assist in the measures required for producing an equilibrium, resulted in the conversion of the large deficit of upwards of 10 millions in 1859-60 into a surplus in 1862-63, which, owing to an unusually large receipt from opium, was no less than 1,827,346 *l.* In the following year the surplus amounted to 78,347 *l.*; the falling-off being attributable to diminished receipts from opium and income tax; but in 1864-65 there was a deficit of 193,521 *l.*

This position of affairs is not attributable to any falling-off in the revenue, which, on the contrary, rose from 44,613,032 *l.* in 1863-64, to 45,652,897 *l.*, in 1864-65, showing an increase of 1,039,865 *l.* within the year, mainly due to the improvement of 529,406 *l.* in the receipts from opium, and of 487,888 *l.* in those from salt, to which reference has already been made.

It is, then, to the expenditure that we must look for the cause which converted the surplus into a deficit; and it will be seen that the increase of receipts was more than counterbalanced by an addition of 1,311,733 *l.* to the charges, which amounted in 1863-64 to 44,534,685 *l.*, and in 1864-65 to 45,846,418 *l.*

Of the total increase, the sum of 70,488 *l.* occurred in the charges attendant on the cultivation of opium. The military expenditure, which in 1864-65 amounted to 13,494,467 *l.*, exceeded the cost of the previous year by 797,398 *l.*; of this sum, about 160,000 *l.* arose from the war with Bhotan, and the remainder from the increased price of provisions, the higher pay of medical officers, and the grant of full batta to all troops, whether serving within 200 miles of the Presidency town or beyond that limit. The rest of the increase is due to additional expenditure on account of the civil administration.

2. DEBT.

The amount of the public debt of India, including that incurred in this country, was, on the 30th of April 1857, 54,490,793 *l.* In the course of the next five years the debt was very largely increased, and, on the 30th of April 1862, it had risen to 98,779,911 *l.* Since that time, the Government have been enabled to pay off some portion of it, and, at the date of the last accounts received from India, the principal sum had been reduced to 92,811,793 *l.*

3. ACCOUNTS.

In 1863 the services of Mr. Foster, the Assistant Paymaster General, and Mr. Whiffin, one of the assistants to the Accountant General of the War Department, were placed at the disposal of the Government of India, in order to assist in the investigation of the system of account adopted in the Public Works Department. These gentlemen, after having completed the more immediate object of their mission, were employed by the Governor General in Council to examine the general system of the Indian accounts, and they submitted reports upon those connected with the military expenditure, and upon the mode of conducting business in the Department of Accounts. With their assistance, the whole system of Indian account has been remodelled, the mode of checking by pre-audit abolished, and modifications effected in the Budget form, which had been previously introduced by Mr. Wilson on the plan adopted in England. Mr. Whiffin returned to this country in 1864, but Mr. Foster remained in India till the beginning of the year 1866, in order, by his personal superintendence and co-operation with the officers of the Financial Department, to assist in carrying this important change into effect. Within the last few days a final report has been received from him, recapitulating the measures which have been adopted with that view.

4. BANKING AND CURRENCY.

On the 16th of July 1861, an Act (No. XIX.) was passed by the Government of India, providing for the issue of a paper currency by a Government department of Public Issue, by means of promissory notes for sums of not less than 10 rupees or 1 *l.* in value. Circles of issue were to be established from time to time, as might be found necessary, and the notes were to be legal tender within the circle in which they were issued, and to be payable at the place of issue, and also at the capital city of the Presidency within which that place was situated.

A further Act (No. XXIV.) was passed in the same year, authorising the Banks of Bengal, Madras, and Bombay, to enter into arrangements with the Government for managing the issue, payment, and exchange of the currency notes, and such of the business previously transacted by the Government treasuries as it might be desirable to transfer to them; and, on the 28th of February 1862, an Act (No. IV.) was passed, repealing the power previously held by the Bank of Bengal to issue its own promissory notes, placing the affairs of the bank on a new footing, with power to enlarge its capital very considerably, and actually transferring to it the management of a large part of the treasury business of the Government, and also that connected with the recently established paper currency.

Similar acts were passed with reference to the banks of Madras and Bombay.

An arrangement has been recently concluded with the Bank of Bengal for carrying out the details of this measure, and the terms of an agreement with the Bank of Madras are under consideration.

In the first instance, the issue of notes was entrusted to the bank, but it being, in the opinion of the Secretary of State in Council, necessary, according to sound principles and experience, that the functions of banking and currency should not be united in one establishment, the management of the issue was shortly

shortly afterwards placed in the hands of a commissioner whose office is at the Mint.

Ten currency circles have been established, the head quarters of which are at Calcutta, Allahabad, Lahore, and Nagpore, Madras, Calicut, Trichinopoly, and Vizagapatam, Bombay, and Kurrachee, and instructions have been issued for receiving the notes of branch circles at *any* Government treasury in payment of taxes, and for converting them at any place of issue where the officer in charge anticipates no risk in doing so.

The total amount of notes now in circulation is in value a little above 7,000,000 *l.*

Some inconvenience was experienced in the year 1863, in consequence of the excessive demand at Bombay for coined rupees, which were required by merchants for remittance into the interior, in order to purchase cotton for the home market. Prompt measures, however, were taken to meet the emergency, by increasing the working powers of the Mint, and sending rupees to Bombay from the other Presidencies.

The question of the introduction of a gold currency into India has been carefully considered by the Government. It was felt to be undesirable to attempt to make so radical a change as authoritatively to substitute the sovereign as the standard coin, but it was urged that it might be made legal tender for the same value as 10 silver rupees, and that a reformation might thus be gradually effected, under which gold would become the general metallic currency of the country, with silver as the auxiliary. The principal objections urged to such a course are two: the first is, that a contract made between a debtor and creditor must be maintained, and that, in a country where all obligations have been contracted to be paid in silver, to make a law by which they could forcibly be paid in anything else would be a breach of public faith, defrauding the creditor for the advantage of the debtor. The second objection is found in the fact, of which France has afforded a conspicuous illustration, that, where coins of the two metals are equally legal tender, obligations will always be met by payment in the coin which the circumstances of the day render the cheaper of the two; and as the sovereign, whether coined in India or imported from England or Australia, is, with reference to any probable price of silver, intrinsically more valuable than 10 rupees, by an amount varying from 4 *d.* to 1 *s.* on each sovereign, it seems to follow that the silver coin would always be preferred by debtors in discharging their obligations, and that an enactment to render the sovereign a legal tender for the value of 10 rupees would probably be almost inoperative.

In order, however, to facilitate the use of the sovereign in all parts of India, and to pave the way for a gold coinage whenever it may be found advisable to introduce it, it was, on the 23rd of November 1864, notified that sovereigns and half-sovereigns, according to the British and Australian standard, would be received in all the treasuries of India for the same sum as 10 and five silver rupees respectively, and would be paid out again at the same rate, unless objection were raised to receiving them. Such a course would impose no obligation on the person paying, and no loss could accrue to the Government unless so great a change should occur in the value of gold as to render a sovereign worth less than 10 rupees, in which case it would be a very simple measure to alter the rate at which they would be received.

Authority was also given for issuing notes in exchange for sovereigns to a moderate amount.

The effect of these orders was that sovereigns and half-sovereigns to the amount of 370,986 *l.* were received by the Bank of Bengal, between the 1st of December 1864 and the 9th of March 1865, and upwards of 100,000 *l.* was paid out again in the same coins; whilst 160,000 Australian sovereigns were remitted to England, and there sold at the rate of 4 *l.* 17 *s.* 9½ *d.* per ounce.

Subsequently, a memorial having been submitted by the Chamber of Commerce at Calcutta in favour of a gold coinage, the Governor General in Council, on the 3rd of February 1866, appointed a Commission composed of members of the Government and gentlemen connected with the mercantile and banking community of Calcutta, under the presidency of Sir William Mansfield, to inquire into the operation of the Paper Currency Act, to ascertain whether it could be rendered more effective by any improved arrangements, and in particular by the introduction of a five-rupee or ten-shilling note, and, generally,

to

to report upon any extension of the monetary system which the increasing commerce and prosperity of the country may seem to require.

5. Money Orders.

At the close of the year 1862, the money order system was introduced into India, the measure being, in the first instance, restricted to the Lower Provinces of Bengal. It is founded on the system adopted in England, but in India it has been deemed preferable to carry it out through the agency of the district treasuries instead of the post-office. The result indicates that the public are availing themselves of it largely, in order to make small remittances from one station to another; the number of orders issued increased from 26,032 in 1863-64 to 37,187 in 1864–65, the amount remitted being 156,189*l.* in the former, and 212,108*l* in the latter year. The average value of the orders was 5*l.* 14*s.* 1*d.*

The financial result to the Government was a receipt of 2,318*l.* for commission, and 212*l.* from orders which lapsed in consequence of payment not being demanded for 12 months; the working expenses for the year amounted to 957*l.*

III. Public Works.

1. Railways.

In the year 1845 two private associations, termed the East Indian and the Great Indian Peninsula Railway Companies, were formed for the purpose of constructing lines of railroad in India; but the projectors found it impossible to raise the necessary funds for their proposed schemes without the assistance of the Government.

It was, therefore, determined by the East India Company to guarantee to the railway companies, for a term of 99 years, a certain rate of interest upon the capital subscribed for their undertakings; and, in order to guard its own interests and provide against the evil effects of failure on the part of the companies, power was reserved by the Government to supervise and control all their proceedings by means of an official director in England and of officers appointed for the purpose in India.

The land required for the railway and works connected therewith is given by the Government, free of expense; and the stipulated rate of interest is guaranteed to the shareholders in every case, except that of the traffic receipts of a line being insufficient to cover the working expenses, in which event the deficiency is chargeable against the guaranteed interest. Should the net receipts, on the other hand, be in excess of the sum required to pay the amount guaranteed, the surplus will be divided in equal parts between the Government and the shareholders, until the charge to the Government for interest in previous years, with simple interest thereon, shall have been repaid, after which time the whole of the receipts will be distributed among the shareholders.

The railway companies have the power of surrendering their works, after any portion of the line has been opened for three months, and of receiving from the Government the money expended on the undertaking; and, on the other hand, the Government have the power, at the expiration of a period of 25 or 50 years from the date of the contracts, of purchasing the railway at the mean value of the shares for the three previous years, or of paying a proportionate annuity until the end of the 99 years, when the land and works will revert to the Government, unless the railway companies have previously exercised their powers of surrender.

As a rule, the roads are constructed, in the first instance, for a single line of rails, the bridges, tunnels, and cuttings being made suitable for a second line. The gauge in all cases is 5 feet 6 inches.

East Indian Railway.

The East Indian Railway Company was originally formed in 1845, with a view to the construction of a line from Calcutta to Raneegunge, in order to bring down the coal which abounds in that neighbourhood, and to develope the mineral resources of the district.

The company was incorporated by an Act of Parliament on the 1st of August 1849, and the engineers commenced work in 1851. In September 1854, 37 miles were opened for traffic; and in February 1855 the whole line of 121 miles to Raneegunge was completed.

In the meantime, however, a general system of trunk railways for India had been determined upon, and the line from Calcutta to Agra and Delhi was

offered to the East Indian Railway Company. Starting from Howrah, on the right bank of the Hooghly, opposite to Calcutta, this colossal line proceeds in a north-westerly direction to Burdwan, whence the branch to Raneegunge strikes off to the west, while the main line runs due north to Rajmahal, thus connecting Calcutta with the Ganges, and enabling traders to avoid the navigation of 250 miles of one of the most dangerous portions of the river. At Rajmahal the railway turns westward and proceeds up the right bank of the Ganges, past Monghyr, where it is driven through the only tunnel in its course, a length of 900 feet through a hill of clay slate and hard quartz rock, to Patna, Benares, and Allahabad. Soon after leaving Patna, it is conveyed across the river Soane by a magnificent bridge, which consists of 27 iron girders of 150 feet each, supported on brick foundations, and which, it is believed, is exceeded in magnitude by only one other in the world. At Allahabad the railway crosses the river Jumna by another very fine bridge, which was opened for traffic on the 15th of August 1865; it has 15 spans of 200 feet, the rails being laid upon the top of the girders, and the space beneath made available for an ordinary carriage road 11 feet in width. The line then takes a north-westerly course through Cawnpore, into the heart of the Upper Provinces, and, at a point 20 miles from Agra (with which it is connected by a branch), it strikes northward past Allyghur to Ghazeeabad, where it meets the Punjab Railway, and whence a short junction line of 12 miles unites it with the city of Delhi.

The whole of this great undertaking has been finished, except the bridge over the Jumna into Delhi, which is expected to be completed in the course of the year 1866; and there is thus a continuous length of upwards of 1,000 miles opened for public traffic.

Nor is this all which has been effected by the East Indian Railway Company. Considerable progress has been made on a very important line of 225 miles, which, starting from Allahabad in a south-westerly direction, penetrates the cotton growing district of Jubbulpore, where it will join the Great Indian Peninsula Railway, and form the connecting link in the communication between Calcutta and Bombay. Moreover, the branch which was opened in 1855 to Raneegunge, and which has since been extended to Barrakur, is to be further carried over the Nargoonjoo Pass to Luckieserai, by which the distance between Calcutta and the north-west will be shortened by 71 miles. A branch of 26 miles will at the same time be constructed to open up the Kurhurbalee coal-fields.

The total length of the East Indian Railway, with all its branches, is about 1,500 miles, of which 1,127 have been opened. The line of rail is at present single throughout its course, except for the first 67 miles from Calcutta; but the cord line to Luckieserai will be made double, and also the portion between Luckieserai and Allahabad.

Great Indian Peninsula Railway.

Scarcely inferior to the East Indian Railway in actual length, and, perhaps, even more remarkable as an engineering work, is the Great Indian Peninsula Railway, the object of which is to establish means of communication between the three Presidency towns, and to connect the great cotton growing districts of Central India with the seaport of Bombay.

As in the case of the East Indian Railway, the operations of this company were at first very limited. It was incorporated in the year 1849, and entered into a contract for the construction of a line from the town of Bombay, through the island of Salsette, and across the Tannah estuary, to Callian, a distance of 33 miles, together with a short branch to Mahim, at the northern extremity of Bombay Island. The works were commenced in October 1850, and finished in May 1854.

At the end of that year the company undertook the extension of this line into the interior, to unite with the East Indian and Madras Railways. At Callian it is divided into two great branches, the one going to the north-east, the other taking a south-easterly direction.

The great physical difficulty, in either case, was to surmount the ghauts, a lofty range which runs parallel to the sea along the whole west coast of the peninsula, and forms a barrier to the conveyance of the rich produce of the Deccan to the port of Bombay.

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The northern line is carried over the Thull Ghaut by an incline nine miles and a quarter in length, in the course of which it attains an elevation of 972 feet. It then proceeds, by Nassick and Chalisgaum, to Bhosawul, at which point an important branch runs eastward, through the great cotton district of Oomrawuttee, to Nagpore. The main line, shortly after leaving Bhosawul, crosses the River Taptee, and continues its course to the north-east, up the valley of the Nerbudda, to Jubbulpore, where it meets the East Indian Railway.

The southern of the two great branches is taken through the mountains at the Bhore Ghaut by an incline nearly 16 miles long, with a total elevation of 1,831 feet, the difficulties of the course being overcome by such a series of cuttings, tunnels, viaducts, and embankments as can hardly be rivalled in any other part of the world, except on the sister incline over the Thull Ghaut. The railroad is then continued to Poona, Sholapoor, and Kulburga, at which place it has been proposed that a line of 119 miles should branch off eastward to Hyderabad, the capital of the Nizam's territories, while the main line proceeds, across the River Kistna, to Raichore, where it forms a junction with the railway from Madras.

The distance from Bombay to Jubbulpore is 615 miles, and that to Raichore 441; and the operations of the company extend over a total length, including the branches, of 1,266 miles.

The section over the Bhore Ghaut was opened on the 21st of April 1863; but in consequence of damage done by the rains, it was found necessary to suspend traffic operations until the following November, when the line was again opened for the conveyance of both goods and passengers. The Thull Ghaut incline was opened on the 1st of February 1865; and traffic is now carried on between Bombay and Khundwa, 352 miles, on the north-east portion; between Bhosawul and Kowtah, 177 miles, on the Nagpore branch; and between Bombay and Sholapoor, 282 miles, on the line to the south-east.

It has been decided to construct a double line as far as Bhosawul, in the direction of Jubbulpore, and also to Lanowlie at the top of the Bhore Ghaut incline.

Madras Railway.

The Madras Railway Company was established in the year 1852, with the view of constructing a railway from the city of Madras to the western coast. Operations were commenced in June 1853, and on the 1st of July 1856, the first section, as far as Arcot, a distance of 65 miles, was open to the public.

In 1858, a further contract was entered into, for a line towards the north-west, to meet the south-eastern branch of the Great Indian Peninsula Railway, and thus form a direct communication between the Presidency towns of Madras and Bombay.

The country through which the line to the western coast passes presented few obstacles to its progress, the only engineering difficulties being to convey the line across the several rivers which traverse its path.

Leaving Arcot and Vellore a short distance on the left, and throwing out a branch on the right to the important military station of Bangalore, it turns southward through the Shevaroy Hills to Salem, beyond which point it resumes a westerly direction, and, passing through the cotton fields of Coimbatoor, finds its way, by a break in the Ghauts, to the port of Beypoor on the coast of Malabar.

The whole of this line, from Madras to Beypoor, 406 miles in length, was opened for traffic in May 1862; and, on the 1st of August 1864, passengers were conveyed on the Bangalore branch, which is 86 miles long, and which attains a height of 3,000 feet on the Mysore table land.

The north-west line, leaving the other at Arconum, 42 miles from Madras, proceeds through Cuddapa, and across the river Pennar, to Gooty, near which point a branch strikes off on the left to the town of Bellary, while the main line crosses the Toongabudra, and at Raichore joins the line from Bombay. This portion of the railway is 338 miles in length; and, as its path is crossed by 12 rivers and two ranges of hills, the works in some parts are very heavy It has already been opened to Cuddapa, a distance of 119 miles, and it was expected that a further section of 32 miles would be ready for traffic by Mid-summer 1866.

Bombay, Baroda, and Central India Railway.

The Bombay, Baroda, and Central India Railway Company was formed to connect Bombay with the cotton districts of Guzerat and Central India. It was incorporated in July 1855, and the cutting of the first sod took place in May 1856.

Starting northwards from Bombay, through the island of Salsette, and crossing the Bassein channel and the Veturnee river, the railway follows the line of the coast, passing Damaun and Surat, at which place it is carried over the Taptee river by an iron bridge of about 2,000 feet in length. A still more serious obstacle to its progress presented itself in the River Nerbudda, which the railway crosses by another iron bridge, 3,800 feet long. Continuing its northerly direction, it proceeds through Broach to Baroda, at which point it turns to the north-west, over the Mhye river, and terminates its course at Ahmedabad, 310 miles from Bombay. The whole line is open, except a section of four miles within Bombay island, from Grant Road to Colaba, which is to be conducted over land now in course of being reclaimed from Back Bay.

Sind Railway.

The Sind Railway Company was incorporated by an Act of Parliament passed on the 2nd of July 1855, and was reconstituted in August 1857. Although its affairs are under a single board, the operations of the company in reality embrace four separate concerns, for each of which the capital raised is kept distinct from that of the other three. The object of the combined undertakings is to establish communication between the port of Kurrachee and the Punjab, and to connect the chief cities of that province with the East Indian Railway at Delhi.

The first portion, or Sind Railway proper, proceeds from the harbour of Kurrachee, across the Rivers Bahrum and Mulleer, and through the Karatolla Hills, to Kotree, on the Indus, opposite Hydrabad, and thereby enables traders to avoid the delays attendant on the navigation of the delta of the river. The length of the line is 109 miles; it was commenced in April 1858, and was opened for traffic on the 11th of May 1861, with the immediate effect of developing a considerable trade in cotton which had not been previously seen on the Indus, as well as in indigo, grain, wool, and other products.

Indus Steam Flotilla.

The navigation of the Indus from Kotree to Mooltan, a distance of 570 miles, is performed by vessels of the Indus Steam Flotilla, which ply twice a month over the course, the larger vessels being employed on the portion of the river above the Sukkur Pass, and smaller steamers being used between that place and Kotree.

Punjab Railway.

The Punjab Railway starting from Sher Shah, on the banks of the Chenaub, about 12 miles below Mooltan, passes through that city, and thence follows a nearly straight course up the left bank of the Ravee, as far as Lahore, at which place it turns directly to the east, until it reaches Umritsur. This line, which is 253 miles long, was commenced in February 1859; on the 10th of April 1862, the section between Umritsur and Lahore, 32 miles in length, was opened; in May 1863 the section between Mooltan and Sher Shah was pronounced to be in working order; and, on the 24th of April 1865, the complete line was declared available to the public.

Delhi Railway.

The railway from Umritsur to Delhi follows a south-easterly direction through the Punjab, and, crossing the Beas at Wuzeer Ghaut, proceeds by Jullunder to Phillour, at which place it is conveyed over the Sutlej. Continuing its course through Loodiana, Sirhind, and Umballa, it crosses the Jumna shortly before reaching Seharunpore, where it turns southward, and passing through Mozuffernugger and Meerut, arrives at Ghazeeabad, whence the trains will run into Delhi over the branch constructed by the East Indian Railway Company. The length of the whole line is 320 miles; the contractors commenced work in 1864; and, although no portion has yet been opened, it is anticipated that the section between Ghazeeabad and Meerut will be ready for traffic by the end of the year 1866.

Eastern Bengal Railway.

In 1857, the Eastern Bengal Railway Company was formed for the purpose of affording railway accommodation to the thickly populated districts lying north and east of Calcutta, which are richly cultivated with indigo, sugar, oilseeds, rice, and other grain. Starting from the Calcutta side of the Hooghly, it proceeds up the right bank of the Matabanga, to Kooshtee, on the Ganges, opposite Pubna, thus enabling merchants to send their goods direct to and from Calcutta,

Calcutta, without undergoing the delay and danger of the navigation of the Sunderbunds. The works were commenced in April 1859, and the line was opened throughout its entire length of 114 miles, in November 1862.

Arrangements have been made for conveying passengers and goods by steamboats, from Kooshtee to Dacca, and also to Assam.

In August 1865, it was determined to extend the line, a distance of 45 miles, to Goalundo, at the confluence of the Bramapootra and the Ganges, with the view of intercepting the traffic from the countries on the north-east; and the railway company have agreed to construct it as part of their original undertaking.

Calcutta and South-Eastern Railway.

The necessity for increased accommodation for ships trading to Calcutta, and the dangers of navigating the Hooghly, led to the formation, in 1857, of the Calcutta and South Eastern Railway Company, with the object of constructing a short line of 29 miles from Calcutta in a south-easterly direction to the harbour and town which it was contemplated to establish on the Mutlah estuary. The whole railway was opened for traffic in March 1862, with the exception of the bridge over the Piallee, which was not finished till a rather later date; but it was not until the beginning of 1865 that a company was formed to build the necessary jetties and wharves required to make Canning Town a trading port.

Great Southern of India Railway.

The Great Southern of India Railway Company was constituted in 1857, its object being, as its name implies, to construct railways in the Southern Provinces of India. The line at first sanctioned runs due west from Negapatam on the east coast, by Tanjore, to Trichinopoly, through a country extensively cultivated with rice and cotton crops. Operations were commenced in May 1859, and the whole line of 79 miles was thrown open for traffic in March 1862. An extension of 87 miles was subsequently authorised to enable it to be taken through Caroor, and up the right bank of the Cauvery, to join the Madras Railway at Errode.

Present state of the railways.

The length of rail in course of construction by these eight companies is 4,944 miles, of which 2,519 were in working order on the 1st of January 1864. Between that date and the end of the official year 1864-65, 667 miles were completed, making the total length open on the 1st of May 1865, 3,186 miles, a distance which was increased to 3,332 miles by the end of the year 1865-66. These figures, however, do not adequately represent the full benefit which has resulted from the progress recently made, inasmuch as the completion of one portion of 10 miles, over the Thull Ghaut, and another of 121 miles between Bombay and Bulsar, has brought into full operation the Great Indian Peninsula and the Bombay and Baroda lines, for a distance of 352 and 306 miles respectively, while the recent opening of the Allahabad Bridge has put within 37 hours' journey of each other two cities, Calcutta and Delhi, which in distance are 1,020 miles apart. A very useful branch was also opened on the Madras Railway, as has been already stated, by which the important military station of Bangalore, and the salubrious climate of Mysore, have been put within eight hours' journey of the town of Madras. So great was the traffic which the completion of these sections threw upon the railways, that the locomotive power was strained to the utmost; and there appears to be every probability that, in some cases, the amount of guaranteed interest will be exceeded by the earnings of the line, even before the whole of the capital expended can be turned to profit.

The capital estimated to be required for the several undertakings which have been sanctioned is 81,000,000 *l.*; and, of this sum, authority has been given for raising 72,424,000 *l.* The amount raised, up to the 30th of April 1866, was 60,860,000 *l.* (of which only 754,231 *l.* was subscribed in India); and the sum advanced by the Government for expenditure was 60,645,000 *l.*, of which rather more than one-third was for charges incurred in England. The amount spent in the year 1864-65 was 3,806,044 *l.*, of which 1,387,699 *l.* was expended in England, and 2,418,345 *l.* in India. An unusually large outlay is anticipated in the ensuing year, owing to the vigorous efforts which are being made to complete the work on the lines in course of construction, and to the large supplies of locomotive engines and rolling stock required to equip the open lines.

This, however, by no means shows the whole of the actual cost of the lines. There must be added, in the first place, the value of the land which is purchased by the Government and given to the railway companies. This is estimated at about 300 *l.* per mile on an average, or, in all, including sites for stations, 1,500,000 *l.*

Secondly, the loss by exchange, as it is usually called, must be added in reckoning the whole expenditure. When the contracts were made with the railway companies, the rate of exchange for the rupee was 1 *s.* 10 *d.*, and it was stipulated that the same value should be preserved in all the accounts between the Government and the companies. The money raised by the several companies is paid into the Home Treasury, and they subsequently withdraw whatever amount they may require for the purchase of materials in England, the balance being credited to them in India for the railway expenditure in that country, at the rate of 1 *s.* 10 *d.* the rupee. So long as the value of the rupee remained at 1 *s.* 10 *d.*, no loss or gain ensued under this arrangement; but when it rose to 2 *s.*, a loss of 2 *d.* on each rupee resulted to the Government; or, in other words, whatever sum was spent on railways in India, eleven-twelfths was capital subscribed by the companies, and the remaining twelfth was a direct advance by the Government from its own resources.

On the other hand, the receipts from the railways are credited in India in rupees, and paid to the shareholders of the company at the rate of 1 *s.* 10 *d.* the rupee; and, therefore, the Government is reimbursed 2 *d.* on each rupee, which forms a set-off against the loss previously incurred.

In the year 1864-65, the loss to the Government on their advances was about 220,000 *l.*, against which must be set a gain of about 90,000 *l.* on the receipts, which was credited to the railway companies at the rate of 1 *s.* 10 *d.* towards the payment of the guaranteed interest. The loss to the Government will each year diminish, and when the traffic receipts shall exceed the expenditure of capital, the gain, which has hitherto been on the side of the companies, will accrue to the Government.

In 1862-63 the net receipts from traffic on 2,151 miles of railway were 690,834 *l.*; in 1863-64, 2,489 miles were open, and a revenue of 915,077 *l.* was obtained.

The complete accounts for 1864-65 have not been received for all the lines; but, excluding the Bombay and Baroda Railway, the mean number of miles over which traffic passed was 2,569, and the receipts were 1,341,337 *l.*

The amount of guaranteed interest paid by the Government to the various companies, up to the 31st of December 1864, was 13,169,178 *l.*, and a further sum of 2,796,671 *l.* was paid during the year 1865. On the other hand, about 4,900,000 *l.* had been received from the earnings of the railways up to the same date; and there was, accordingly, a sum of about 11,000,000 *l.* sterling still due from the companies to the Government. Although it will be some time before the latter will receive back the large amount advanced by them, the condition of some of the railways gives reason to hope that, at any rate, a considerable portion will ultimately be repaid. Moreover, the free conveyance of the mails, and the reduction in the expense of transporting troops and stores, will effect a considerable saving; and the indirect gain to the State, arising from the greater security afforded to the country and the impulse given to commerce and agriculture, is incalculable.

The fares charged to passengers vary on the several lines, from 1½ *d.* to 2½ *d.* per mile for the first class; ¾ *d.* to 1 *d.* for the second; and ¼ *d.* to ½ *d.* for the third and fourth. The rate of charge on goods varies, according to the class of the articles, from 1 *d.* to 7 *d.* per ton.

The number of passengers conveyed by the several railways during the year was 11,781,683, more than 94 per cent. of whom travelled in the third-class carriages.

There were 2,958 Europeans and East Indians employed in the several departments of the railways in 1864, and 38,577 natives of India. It is not at present found practicable to entrust to the latter duties for which professional knowledge and skill, or nerve and presence of mind are needed; but attempts are being made, with some success, to train them for such employment, and one native, after qualifying himself, has been selected as a fourth-class engineer on the Madras Railway, while there are two or three native engine drivers employed on the Great Indian Peninsula line.

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Two companies have been formed for the purpose of constructing light lines of railway without the assistance of a preliminary guarantee from the Government. Unguaranteed railways.

The Indian Branch Railway Company, in 1863, laid down a line, about 27 miles in length, with a gauge of 4 feet, from Nulhattee, a station on the East Indian Railway, 144 miles from Calcutta, to Azimgunge, opposite to Moorshedabad; it was opened on the 21st of December, and traffic was carried on throughout the following year, though not to so great an extent as was anticipated. They have also obtained a concession of an important system of railway communication in Oude and Rohilcund, and considerable progress has been made on the section between Cawnpore and Lucknow, which it was hoped might be opened in the summer of 1866. In this case the gauge of 5 feet 6 inches has been adopted, as on the main line. Indian Branch Railway Company.

In the south of India a branch line has been constructed by the Indian Tramway Company, from the Arconum junction on the Madras Railway to Conjeveram. This line, which is 19 miles in length, was opened on the 1st of August 1865. Light rails are employed, with a gauge of 3 feet 6 inches. Indian Tramway Company.

The aid which is given by the Government to these companies, takes the form of a subsidy, not a guarantee. Each case is decided according to the character of the project; the land is provided by the Government, free of cost, for a term of 99 years; and on the completion of the works, the Government will grant a subsidy, which is in no instance to exceed 100 *l.* a mile per annum, for 20 years, together with a special allowance for every bridge of which the estimated cost may be greater than 10,000 *l.*

2. TELEGRAPHS.

In the early part of 1852, the working of an experimental line of electric telegraph, which had been constructed between Calcutta and Kedgeree, was reported by Dr. O'Shaughnessy (now Sir William O'Shaughnessy Brooke) to have been entirely successful, and that officer was thereupon directed to undertake the construction of a complete system of telegraphic lines throughout India. By the ability and energy which he displayed, and by the exertions of the other officers of the telegraph department, electric communication has been carried over the length and breadth of India, and the aggregate extent of wire is now not less than about 14,000 miles.

After an interruption of more than three years, British Burmah was, during the year under report, once more connected with Calcutta by the construction of a land line through Arracan, in lieu of the deep-sea cable, which, after a short trial, utterly failed.

In 1858-59 schemes were proposed for establishing telegraphic communication between England and India, both by way of the Red Sea and the Persian Gulf. The line was laid, and messages were actually transmitted by the former route; but, after a short period, the signals failed, and all attempts to restore the communication, for any length of time, proved fruitless.

Greater success has, however, attended the construction of the alternative or Indo-European line, which, proceeding from Kurrachee in a westerly direction, along the Mekran coast, by Gwadur, to Bunder Abbas, and thence up the Persian Gulf to Bushire and Fao, at the head of the Gulf, has a total submarine course of nearly 1,500 miles; a land line also has been constructed as far as Gwadur. From Fao the line is conveyed overland to Bussora, and thence across Turkish Arabia to Bagdad, Mosul, and Diarbekir, whence it proceeds through Asia Minor, by Siras, till it joins the European system at Constantinople. The length of the whole line, from Kurrachee to Constantinople, is about 3,000 miles, one-half of which is submarine.

From Bagdad another line has been taken through the heart of Persia to Teheran, and thence southwards to Ispahan, Shiraz, and Bushire.

A Committee of the House of Commons was appointed, in the early part of this Session, to inquire into the practical working of the present system of telegraphic and postal communication between England and the East Indies, but it has not yet made a report.

3. IRRIGATION WORKS, CANALS, &c.

Foremost among the works of irrigation which have been constructed in India must be mentioned the Ganges Canal, which, starting from the high land at Hurdwar, where the river forces its way through the Siwalik Hills into the open plain, conveys its fertilizing stream through the whole length of the Ganges Canal.

Doab, until one branch joins the Jumna a little above Humeerpore, and another at Cawnpore repays to the Ganges a portion of the water borrowed nearer its source.

The main canal alone is 525 miles; and, when the chief branches are all completed, the entire length of the work will be very nearly 900 miles, independently of the many hundred miles of distributing watercourses and minor channels attached to it.

It was opened for the double purpose of irrigation and navigation, on the 8th of April 1854; and, during the famine with which Upper India was visited in 1860, ample proof was given of the incalculable benefits already conferred by it on the country through which it passes, although the means of distributing the water are still very imperfect.

In 1863-64 the gross revenue derived from it was the largest received up to that time, namely, 77,390 *l.*, but the extension of the irrigation during the succeeding year caused the income to increase to 98,641 *l.*

Considerable defects having been found to exist in the bed of the canal, in consequence of erosion from the velocity of the stream, a committee of engineer officers was appointed to consider the best plan of remedying the defects; and an elaborate report was drawn up by Captain Crofton, in the year 1864, on the alternative projects recommended by them. It appears evident that the main cause of the evils which impair the efficiency of the work is the too great slope of the bed, as originally constructed; but there seems to be no necessity for forming a supplementary line, as had been suggested, which would entail on the Government an expenditure of more than 800,000 *l.*, and orders have been given for carrying into effect certain modifications of the existing works by which the velocity of the water will be reduced to such a current as the earthen channel will safely bear. It is anticipated that the cost of the improvements, the loss of revenue during the stoppage of the canal, which may be requisite for an entire year, and the compensation which will have to be paid to cultivators who have commenced irrigation, and sunk money in watercourses, will amount, in the aggregate, to 550,000 *l.*

While regretting the necessity for incurring the additional expense, the Government of India bear the strongest testimony to the value of the benefit which has been bestowed upon the country by the original projector, Sir Proby Cautley; and they see no reason to doubt that, when the modifications are completed, the canal will not merely be well adapted for irrigation, but will also be an efficient navigable channel.

Other Canals in the North-Western Provinces and Punjab.

The Eastern and Western Jumna Canals, commencing at the point where the Jumna descends from the Himalayas, irrigate the country on either side of the river, till they join it again at Delhi. The main canal, on the eastern side, is 130 miles long, with 610 miles of branch channels; and the gross income in 1864-65 was 33,945 *l.*, instead of 26,502 *l.* in 1863-64. The main channel of the Western Jumna Canal, including its principal branches, is 445 miles in length, and it is of great service in irrigating the naturally sterile country around Hissar; the receipts have, for nearly 20 years, amounted, on an average, to about 13 per cent. on the sum expended by the British Government in recovering the canal from the state of dilapidation into which it had been permitted to fall during the Mahomedan rule. Defects have, however, arisen from the large volume of water poured into it of late years, for purposes of irrigation; and sanction has been given to an estimated outlay of 171,400 *l.* in the construction of permanent head works, works for drainage and escape, and 510 miles of new distributing channels.

In the Punjab there are two kinds of canals, inundation and permanent. The former, which are fed from the rise of rivers in the spring, when the snows melt, and are empty during the winter, when the streams are not high enough to enter them, supply water to the south-western portion of the province. They comprise the Upper and Lower Sutlej systems, with 213 and 659 miles of channel respectively, the Dehra Ghazee Khan system, 578 miles in length, and the Mooltan canals, the channels of which extend over 659 miles. The receipts derived from the Sutlej and Chenab inundation canals in 1863-64 were 4,294 *l.*, but in 1864-65 they were only 3,815 *l.* The principal permanent canal in the Punjab is that of the Baree Doab, having a central line which, when completed, will be 247 miles in length, besides 219 miles of branches. The receipts from this canal rose from 35,125 *l.* in 1863-64 to 48,587 *l.* in 1864-65, and the estimated

estimated cost of the whole work is 1,350,000 *l.* Including the Western Jumna Canal, the revenue derived from works of irrigation in the Punjab increased by 18,422 *l.* during the year. The expenditure in 1864–65 was 47,879 *l.* in new works, and 74,217 *l.* in establishment and repairs.

Besides these great works, there are about 66 miles of canal in the Dhoon, and 153 miles in Rohilcund, and also a large tank or artificial reservoir, with various channels and escapes, at Agra, which together produced a gross income of 7,410 *l.* in 1864-65, whereas 7,435 *l.* was realised in the previous year. A scheme is under consideration for reclaiming the Terai or marsh land at the foot of the Himalayas, in Rohilcund, by a combined system of drainage and irrigation.

Oude.

In Oude, operations were begun in 1864-65, for the purpose of clearing the channel of the Gogra, and rendering it navigable as far as Byram Ghaut.

Madras.

The principal irrigation works in the Madras Presidency are, first, the innumerable tanks, or artificial lakes, of various sizes, which in times past were constructed by the natives of India, who, taking advantage of the natural slopes and basins formed by the configuration of the ground, and throwing embankments across the outlets of the valleys, obtained an area for storing such a volume of water as the local wants might demand; and, secondly, the anicuts, that is, dams or weirs, at the deltas of the great rivers which flow into the Bay of Bengal.

Godavery Irrigation.

The most northern of these rivers is the Godavery, which, near Rajahmundry, about 55 miles from the sea, divides into two streams, forming a delta of rich alluvial country. A little above this point, the river is 2,000 yards broad, but it soon expands into a width of three times that extent, parted, however, by islands, into four branches. At this place, named Dowlaishweram, an anicut has been thrown across each channel, the united length of the four dams being 3,955 yards; and upwards of two miles of stream is thus blocked up by a solid well protected mass of stone, in lime cement, with a breadth at the base of nearly 130 feet, and a height of 12 feet above the natural surface of the water.

From Dowlaishweram, one channel is conveyed along the left bank of the river, while another, adapted to navigation, leads straight to the port of Cocanada. The district lying between the two branches of the river is also intersected by canals, as well as the space between the Western Godavery and the Colair Lake. Altogether, there are 840 miles of main channel, irrigating 780,000 acres of land.

Kistna.

A similar series of canals to that carried out iu Rajahmundry is in course of construction in the delta of the Kistna. At Beswarah, 60 miles from the sea, an anicut has been thrown across the river, in order to raise the water to the height required for the irrigation of the land in the neighbourhood. The dam is 1,250 yards in length, and has a breadth of 305 feet at the base, and a height of 14 feet above the summer level of the stream. Thence the water is conducted over the districts of Guntoor and Masulipatam, on either side of the river; and it is estimated that, when completed, about 500,000 acres, of which 190,000 are already brought under cultivation, will be irrigated by 290 miles of channel. From Beswarah navigable canals are in progress, one of which, passing by Ellore, will unite the waters of the Kistna to those of the Godavery; another, leading to the port of Masulipatam, was completed during 1864, but the works sustained considerable damage from the effects of the cyclone; and the third, on the Guntoor side of the river, will convey vessels to the harbour of Nizampatam.

Pennair.

In 1853 an anicut was commenced at Nellore, on the Pennair, at a spot where the river narrows to a width of only 520 yards. The work was finished in 1855, but both in 1857 and 1858 a great breach was made in it by violent storms, and it was finally completed in 1861. The supply of water being precarious, it has been necessary to supplement the river by a series of tanks, from which water can be distributed when the stream fails. The principal channel, called the Jaffer Sahib, was nearly completed in the year under report.

Cauvery and Coleroon.

The districts of Trichinopoly and Tanjore are watered by the River Cauvery, the main stream of which, in the latter part of its course, receives the name of the Coleroon, the southern branch retaining the original title of the Cauvery.

Upwards of 1,600 years ago an anicut, 360 yards long and about 50 feet broad and 15 deep, was constructed by the natives across the principal river, at the lower extremity of the island of Seringham. In course of time, the Cauvery was found to be gradually deteriorating by the formation of deposits at the head of the island, in consequence of the larger volume, swifter course, and more direct channel of the Coleroon; and, accordingly, the old weir was considerably raised soon after the province was acquired by the English. Still the root of the evil remained, at the separation of the two streams; and in 1836 Captain Cotton of the Madras Engineers (now Major General Sir Arthur Cotton) carried out his plan for remedying the evil, by throwing a dam of masonry, 750 yards long, across the Coleroon, just below its junction with the Jyaur, the height being regulated so as to ensure about half the volume of water passing into the Cauvery. A series of sluices was constructed to admit of the escape of the surplus water from the Cauvery; and in 1843, as it was found that there was danger of the channel of the Coleroon suffering in its turn, the dam was lowered, on the recommendation of Colonel Sim; and control has thus been completely obtained over the two streams. Towards the sea the main river is almost lost amongst the immense number of irrigating channels, and the regulation of the supply of water is aided by two other weirs, one of which crosses the Cauvery and Vennar, one of the principal branches, and the other was thrown across the Coleroon 70 miles below the head at Seringham, in order to meet the wants of the district of South Arcot. The total area brought under irrigation by water drawn from these rivers is upwards of 700,000 acres.

Palar.

The embankment on the River Palar, which passes through the districts of North Arcot and Chingleput, was raised in the year under report from 5 to 7 feet in height.

Navigation of the Godavery.

Before quitting the subject of canals in the Madras Presidency, it may be well to describe the important operations on the Godavery, designed to improve the navigation of the river above the point where the works of irrigation commence. In order to provide a cheap means of communication from the provinces of Central India to the sea, a scheme was set on foot, in 1855, for rendering navigable that portion of the Godavery and its tributary, the Wurdah or Pranhita, which lies between the cotton-producing districts and the Rajahmundry anicut, whence the canals branch off to the sea, a total distance of 445 miles. The obstacles to navigation consist of three rocky reaches or barriers, in length 8, 14, and 36 miles respectively, of which the two lower are passable by steamers at certain times during the flood season, but the third is scarcely navigable at all. The open portions of the river between the barriers have a gentle slope well adapted to navigation.

The first barrier occurs at a point 142 miles from the mouth of the river; the distance between this and the second barrier is 70, and that between the second and third 75 miles; and above the last there is a clear space of 100 miles to Hingenghat, in the cotton country. It was originally proposed to construct, at the first barrier, where the river is a mile in width, a weir, 5,360 feet long and 15 feet high, with a lateral canal 24 miles in length, and locks to complete the communication; at the second, a weir, 1,300 yards long, with locks in the river bed; and at the third, a weir of 400 yards, with 32 miles of canal and locks. Although the river was surveyed, and an estimate for the work submitted, operations were not actually begun before 1861.

About the same time, another proposition was brought forward for laying down tramways, as a temporary measure, at each of the barriers, so as to open a traffic which, by the time that the permanent works were completed, might become important and remunerative.

This plan was adopted, and in May 1862 sufficient progress had been made for the Government of Madras to feel justified in declaring the line open for traffic, the transport at the barriers being effected by means of carts, pending the completion of the tramway. With every disadvantage from the badness of the roads and the smallness of the steamboats, 3,000 passengers and 1,290 tons of goods, including about 1,000 bales of cotton, were brought down during the season from Chanda, the chief town in the southern part of the cotton country.

In the following year, the works were placed under the superintendence of the

the Chief Commissioner of the Central Provinces, who made an able report on the subject; and the tramroad scheme was suspended by the Government of India, in order that the whole of the available labour and money might be devoted to the main works.

The total expenditure from 1855 up to the 1st of May 1865 was 201,295 *l.*, and the work has been almost entirely limited to the operations at the first barrier. It is estimated that about 40,000 *l.* more is required to open navigation at this point for four or five months in the year; and an expenditure of another 2,000 *l.*, still further to clear the channel, will extend this period to six or seven months for steamers, and the whole year for boats.

Provision has been made for an outlay of 130,000 *l.* at the second barrier; and the completion of those works would render the river navigable for boats drawing from two to five feet of water, to a distance of 309 miles from the sea, besides 80 miles of the main stream of the Godavery above its confluence with the Pranhita, at a total expenditure, including establishments, of about 430,000 *l.*

Two proposals have been made with regard to the communication above this point. The one is to construct a weir, 20 feet high, at the top of the third barrier, by which the 40 miles of river between it and Bullarpoor would become a deep piece of still water, navigable at all seasons of the year; and from the pool just above the weir, to lead off a canal 33 miles long, which in its course will descend 144 feet, to the level of the river below the barrier. The other plan is to substitute for the canal and river a road from the foot of the barrier to the neighbourhood of Chanda. Major Haig, who has had much experience in the works on this river, advocates very strongly the construction of the weir and canal, at an estimated expense of 131,900 *l.*, rather than of the road for 75,000 *l.* The carriage of produce by the river the whole way from Chanda to Cocanada, 384 miles, is estimated, he says, to cost 16 *s.* a ton, and, by the combined route of partly road and partly river, the charge is calculated to be 49 *s.* a ton; in other words, the substitution of the piece of road for the last portion of the navigation works would increase the cost of export threefold. Detailed surveys and estimates have been called for, and directions given for the speedy prosecution of the work on whichever of the two plans may appear to the Government of India to be preferable.

East Coast Canal.

Inland navigation is carried on by means of the East Coast Canal, for a distance of 110 miles from Sadras northwards, and some progress has been made with the continuation of it in the Nellore district.

British Burmah.

In British Burmah it has become very desirable to reclaim, from the periodical inundations of the rivers, certain tracts of land which are now rendered more or less unproductive, and which are much needed for the new settlers who are continually emigrating from Upper Burmah to the British territories; and sanction was recently given for the erection of an embankment, on only one side of the river, so as not to interfere with the effective waterway, from Kyazemgyee to the Patashin, down the right bank of that river, and along the right bank of the Irrawaddy to a spot below Myanoung. The Patashin embankment has already been completed at a cost of 11,000 *l.*; and, should it be found to answer the purpose for which it was designed, it is intended to continue operations of a similar character in the delta of the Irrawaddy, as circumstances may render desirable.

In order to afford good communication between the Pegu and Sittang rivers, the Pyne Kyun Creek is being widened and deepened, at a cost of 30,000 *l.* The cutting of the canal has already had the effect of draining a large tract of marshy inundated country; and, besides affording a navigable channel between the two rivers, it will bring into cultivation, for rice crops, about 100,000 acres of waste lands, which may be expected to yield in due time an annual revenue of 10,000 *l.*

Bombay.

In the district of Khandeish some important irrigation works are being constructed, by throwing dams across the rivers, as has been so successfully done in the Madras Presidency. The progress of the contractor for the works on the Girna was very slow in 1864-65, and nearly the whole of the operations were carried on by the Government department; the masonry weir, 1,550 feet in length, was completed to its full height, and bore the monsoon floods without

any injury whatever. The Panjur dam, which is approaching completion, was delayed for a similar reason to that which retarded the Girna work. In Sattara, the weir across the Kristna, 2,000 feet long, was raised to within six feet of its full height; the canal will have a length of 45 miles. The Rewaree channel, which was completed in 1864-65, though only four miles long, is very valuable, and the cultivators are eagerly using the water. The tank at Koorgaum, near Barsee, was nearly completed, and considerable improvements were effected in the Mudduck tank and canal in Dharwar.

Sind.

The cultivation of the province of Sind is dependent on the rise of the Indus, the waters of which are distributed over the face of the country by a network of canals, thrown off to the number of several hundreds, on both sides of the river. As constructed under native rule, they were often of considerable dimensions, and well planned in general direction, but irregular in shape, and liable to be frequently blocked up by earth washed away from the loose banks of the river, or by sand left in front of their heads by the receding waters; the variation in the height to which the Indus rose in different years also materially affected the annual production of the lands dependent on these channels for irrigation.

To remedy these defects, it was proposed by Captain Fife, of the Bombay Engineers, in 1856, to cut, from points where the banks are permanent, trunk canals, running in a direction nearly parallel to the course of the river, and capable of being maintained when the stream should be at its lowest level, the existing canals, which they would cross at right angles, serving as distributing branches. A general approval was given to the scheme, and the preparation of detailed estimates was ordered.

In 1859, Sir Bartle Frere, then Commissioner in Sind, submitted his views on Captain Fife's revised plan of irrigational works in that province, either at the time in progress, or to be subsequently carried out. The most important of these is the great project for watering the whole eastern portion of the country, by conducting a stream from the Indus to the Narra, which had for many years almost wholly ceased to flow, the consequence being that the valley had become a depopulated desert. A cutting of about 13 miles was accordingly made from Roree, on the Indus, to the ancient channel of the Narra; and, at a place called Mittrow, nearly opposite Duddur, a canal is being constructed, 120 miles in length, to distribute the water thus restored to the Narra over the vast plain of Meerpoor. During 1864-65 it was completed to a distance of 70 miles from Mittrow.

Another work calculated to be of much benefit to the country is the improvement of the Foulalee, a natural channel in the Hydrabad Collectorate, which was falling into decay; levels and surveys for no less than 324 miles of minor watercourses were executed in that district alone, in the year under review.

Many other new works have been projected, and a large sum is annually expended in clearing those already constructed, from the deposits left by the fall of the river. Labour was very scarce during the year, and recourse was had to the employment of convicts to a considerable extent.

Besides these great undertakings, and minor works, such as the circular canal round Calcutta, and the immense tanks in Central India, all of which have been made or repaired by the Government, extensive irrigation works are in course of construction by two private companies.

Madras Irrigation Company.

The Madras Irrigation and Canal Company, formed in reliance on the engineering experience of Sir Arthur Cotton, whose name is so well known in connection with the works of the Godavery and other rivers of the Madras Presidency, received from the Government a guarantee of five per cent. interest on a capital of one million sterling for 25 years; and they obtained from Parliament power to raise another million without any guarantee, but, owing to the state of the market, no money was subscribed. Their scheme was to make a canal both for irrigation and navigation, from Sunkasala on the Toongabudra river, through Kurnool (at which point it would be carried across the Hindry by an aqueduct, 722 feet long) to Cuddapa, and thence to join the East Coast Canal, near Nellore.

In consequence, however, of the cost of the work being found to exceed the original estimates, the operations have been restricted to the portion between Sunkasala

Sunkasala and Cuddapa, 177 miles in length. The anicut at Sunkasala, 1,500 yards long, and 12 feet above the bed of the river, has been recently completed, and the Hindry aqueduct was, with some trifling exceptions, finished during the year under report, and on the 10th of July 1864 water was admitted into 18 miles of the main canal; whilst, although some of the sections are still in a very backward state, considerable progress has been made along the whole channel to the 143rd mile.

The total outlay up to the end of the year 1864-65 was 760,796 *l.*; and it is estimated that the expenditure at the end of March 1866 had probably been about 942,258 *l.* As the amount of guaranteed capital remaining is insufficient for the completion of the work to Cuddapa, Her Majesty's Government have very recently consented to advance such further sums, not exceeding 600,000 *l.*, as may be requisite for that purpose, the Irrigation Company agreeing, in the event of the canal not being in working order by the 1st of July 1871, to make it over to the Secretary of State in Council, in exchange for such an amount of India Government Five per Cent. Stock as will be equivalent, at the price of the day, to the capital expended.

East India Irrigation Company.

In Orissa, the East India Irrigation Company projected a scheme for protecting that part of the country from inundation by the rapid current of the Mahanuddy, and supplying it with drainage, irrigation, lines of communication, and access to the sea; for forming canals connecting the districts of Balasore and Midnapore with the Hooghly at Calcutta; and for constructing a canal to be substituted for a part of the Mahanuddy in which navigation is very dangerous, so as to open up the rich cotton-producing plateau of Chutteesghur or Raepore in the Central Provinces. The Government of India, however, did not approve of the whole of this project, and only gave their sanction to the lower section, consisting of massive weirs on the Mahanuddy and Beropa rivers at Cuttack, and on the Cossaye at Midnapore, with four main canals for irrigation and navigation, and a tidal canal for navigation only, connecting Calcutta with Baligai. The work is being carried on without any guarantee from the Government.

Soane Canal Scheme.

The Soane canal scheme was designed by Colonel Dickens, to supply irrigation to Southern Behar, by throwing a weir across the River Soane, a little above the point where it is crossed by the Grand Trunk Road, and constructing on either side of the dam two main channels, which, after a course of 10 or 12 miles, should spread into fanlike systems of watercourses for irrigation, while navigable channels would be carried to Benares, Patna, &c. The question is under consideration whether these works, which would comprise altogether a length of 681 miles of irrigation and 145 of navigation channels, shall also be undertaken by the East India Irrigation Company, or be constructed by the Government.

Execution of Irrigation Works by Private Companies.

In 1858 when doubts were entertained of the ability of the Government to raise funds for the execution of works of irrigation on an extended scale, it was thought right to accept, as an experimental measure, the offer of a private company to carry out a particular undertaking. The close connection, however, between the interests of the Government which receives and the cultivator who pays the rent of the land, appears to render it undesirable that such works, and the arrangements connected with the returns from them, by which those interests may be so materially affected, should be in other hands than those of the Government; and it may be found advisable that the State should undertake directly all the irrigation works which it can practically manage, and, when the available balances prove insufficient to supply the requirements of the country, should raise funds by means of loans.

4. Roads.

It is impossible, in a report of this nature, to give an account of the various roads, the construction of which has been sanctioned or proceeded with in the year under review; but a brief mention may be made of some of the larger schemes which have been brought under the consideration of the Government.

The necessity of providing cross-roads or feeders to the railways, by which the traffic of the country may be attracted to the great lines of communication, has not been overlooked; their construction has been vigorously undertaken

by the local authorities in the several districts; and the importance of such roads has been urged on the rulers of native states through whose territories the railways pass.

Bengal. In Bengal an outlay of 80,000 *l.* has been sanctioned for the completion of the bridge across the Barrakur, on the Grand Trunk Road; a branch road from Patna, through Jehanabad, to Gya, is in progress; and one from the Ganges to the Himalayas, at Darjeeling, 136 miles in length, is open throughout, only one river remaining unbridged.

Two trunk lines of road are about to be constructed in Assam, one of which, running through the entire length of the province, will serve to restrain the flood waters of the Brahmapootra, and to facilitate the reclamation of swamps which have hitherto been periodically inundated, and at the same time it will be made capable of having a light railway hereafter laid down, if necessary; the other, leaving the main road at Gowhatty, and running thence to Shillong, will place the provinces of Assam and Sylhet within easy reach of one another.

North Western Provinces. The principal roads under construction in the North Western Provinces are those from Agra to Bombay, from Cawnpore to Jhansi, from Saugor to Banda, and the trunk line through Rohilcund. The estimates sanctioned during the year on these and other roads amount to about 155,000 *l.* The question is also under consideration by what means communication may best be opened between Agra and Gwalior, across the River Chumbul.

Punjab. In the Punjab, besides the great road from Lahore to Peshawur, which is in a very forward state, and on which nearly a million of money has already been spent, additional bridges are being constructed on the Grand Trunk Road, at a cost of 56,000 *l.*, and an expenditure of some 30,000 *l.* has been sanctioned on the roads between Umballa, Kalka, and Simla.

On the Hindostan and Thibet road, upwards of 25,000 *l.* has been recently expended, and the way is completed for laden mules as far as Pangee, 10 miles beyond Chini in Bussahir, and 121 miles from Simla. The worst part of the country between India and Chinese Tartary has now been opened out, and the road beyond Pangee, though excessively bad and steep, is practicable for ponies and yaks for about half the year. Further outlay has been stopped, at least for the present, as the continuance of the work, to make the path permanently fit for mule traffic with burdens, would be very costly, and it is doubtful whether it could ever become a great highway for trade; it is considered that the extreme limit to which the State ought to go, is to render the road reasonably secure for travellers, and an estimate has been called for of the expense which would have to be incurred for this purpose.

Oude. In Oude, bridges are being erected on the roads from Fyzabad to Allahabad and Lucknow, and an estimated outlay of 26,500 *l.* on the road from the latter place to Seetapore has been approved.

Central India. A system of roads in Central India and Rajpootana is under consideration, to be carried out as funds are available; and operations are in progress between Mhow, Neemuch, and Nusseerabad, and on the main line from Agra to Bombay.

Central Provinces. A sum of 145,000 *l.* was spent during the year on the three great lines of road through the Central Provinces; the part of the northern road lying between Jubbulpore and Nagpore, across the Sautpoora Hills, which has cost about 300,000 *l.*, is approaching completion; on the southern road, through the cotton tracts of the Wurdah Valley to the Godavery country, 108 miles have been finished; as also have 52 miles of that to the east, in the direction of Chutteesghur.

Hyderabad Assigned Districts. Mysore. British Burmah. Upwards of 100,000 *l.* is about to be laid out in Hyderabad; while improvements in the means of communication in Mysore are being effected, at a cost of about 75,000 *l.* Nor have the wants of British Burmah been unattended to, estimates to the amount of 70,000 *l.* having been sanctioned for roads in that province.

Attention has lately been directed to the question of establishing a commercial route through Burmah to Western China, by means of a tramway from Rangoon through the Salween Valley to Yunan. This project could not be carried

carried out at any reasonable cost, owing to the height of the ridge separating the valleys of the Sittang and Salween, and at present such an undertaking could only result in a financial failure. It was, however, thought that, if a rocky barrier about 100 miles above Moulmein could be removed, the River Salween might be found navigable up to the Chinese frontier, and a survey of the river was accordingly ordered; but the result has been to show clearly that it is so frequently interrupted by rocks and rapids as to be unnavigable.

Madras. The attention of the Government of Madras has been especially drawn to the formation of roads in Wynaad, and systematic operations have been directed for providing sufficient means of communication on the plateau and down the Ghauts to meet the wants of that district, and to prevent any difficulty in conveying the coffee crop to the ports of shipment.

Bombay. The road from Barsee to the Barsee-road station was finished, as far as was practicable before deciding whether or not it should have a tramway laid down. A sum of 12,500 *l.* was expended during the year on the approach to Carwar, through the Arbyle Ghaut, and recent reports speak very favourably of the condition of the greater part of this road; but little was done on the road through the Kyga Ghaut, owing to the failure of the contractor, and the difficulty of procuring labour. About 30,000 *l.* was spent on the road between Ahmedabad and Gogo, and several bridges were completed; but the work was interrupted by two outbreaks of cholera among the labourers, who dispersed, and could with difficulty be collected again. In the city of Bombay the new roads on the esplanade and the western face of the town were nearly finished, and the greater part handed over to the charge of the municipality. In Sind about 3,765 *l.* was spent in constructing bridges on the roads leading from Hydrabad to Roree, and to Oomercote.

5. General Expenditure. In 1856-57 the sum spent on public works, exclusive of all expenditure connected with railways, was 2,906,934 *l.* The outlay on the same account in 1864-65 amounted to 4,985,197 *l.*; and in the current year, 1866-67, it is estimated that the cost of public works will be upwards of six millions sterling.

6. Rates of Labour. Returns which have been prepared of the rates of labour during the last 10 years show that, since 1852, they have increased 30 per cent. throughout the whole of India; while, in the cities of Bombay and Kurrachee, the per-centage of increase has been from 60 to 67, and in Calcutta and Allahabad, where wages used to be very low, the charges for some kinds of work have risen no less than 125 and 158 per cent. respectively.

7. Military Buildings. The great increase of the European force in India, and its redistribution over the country, rendered it necessary to prepare a comprehensive scheme of barracks; and Colonel Crommelin was appointed to frame an estimate of the expense which it would be desirable to incur during the next four years. That officer calculated the expenditure required for the erection of new barracks, the improvement of those already existing, and other necessary works of the same nature, at upwards of six millions sterling, in the Bengal Presidency alone; and, allowing for the wants of the other parts of India, and the charge for superintending establishments, it is estimated that the total outlay required will be between nine and ten millions. Sanction has been given to the commencement of such of these works as are clearly indispensable, and their prosecution as rapidly as is consistent with economy of construction and with the available supply of labour.

In defining the extent of accommodation to be allowed, and the principles to be attended to, in building the barracks and hospitals for the troops, advantage has been taken of the suggestions made by the Sanitary Commissions which were appointed in 1863 for the three Presidencies, as well as of that sitting in London, and the plans have in all cases of importance been submitted to the Royal Sanitary Commission, before being carried into effect. A committee has also been nominated in India to consider the subject of artificial ventilation and cooling of public buildings.

8. Fortifications. The works on the fortifications which are being constructed for the defence of the harbour of Bombay, were continued during the favourable season, and

it is anticipated that the year 1867 will see the Oyster Rock battery armed and completed as far as the most essential points are concerned. On the Middle Ground Battery, the work was fairly started in October 1864, and progress was made until May, when the monsoon set in. The batteries on Cross Island and Colaba Point were completed and armed, and that on Butcher's Island also was finished. The total amount expended during the year was 122,380 *l.*

The demolition of the western ramparts was completed, as also was that on the eastern side, with the exception of a small portion on which some markets abut.

In consequence of the determination to place the principal arsenal of Western India at Kirkee, the artillery station close to Poona, it was resolved to construct a fort at that place, which occupies a commanding position peculiarly adapted for such a purpose.

9. Civil Buildings.

Among civil buildings may be mentioned the Memorial Church at Cawnpore, erected at a cost of 15,000 *l.*, of which 6,000 *l.* has been contributed from private sources, and the remainder will be furnished by the State. Sites in Calcutta were granted by the Government of India, for the Dalhousie Memorial Hall and Institute, and for a hall to be raised in memory of Dr. Duff for the purpose of holding meetings for the promotion of religious and benevolent objects. Provision was made, or estimates sanctioned, during the year under report, for the expenditure of 5,000 *l.* on the completion of the Delhi Institute; of 30,000 *l.* for the erection of colleges at Berhampore and Poona; and of 12,500 *l.* in the construction of a new iron wharf at Rangoon. Fair progress was made with the Custom House at that place, and the Post Office at Moulmein was completed. The building of the Deccan College at Poona was commenced, towards the erection of which Sir Jamsetjee Jejeebhoy contributed 12,500 *l.*; and a site was cleared for an Engineering College at Poona, one-half of the estimated cost of which will be defrayed by Mr. Cowasjee Jehangeer. At Port Blair the cost of affording shelter to the convicts amounted in the year to 105,000 *l.*; and a general scheme has been called for, showing the position and probable cost of the barracks, &c., which it is necessary to erect at that settlement.

In Bengal, sites have been selected for the erection of eight penitentiaries, to hold 1,000 native prisoners in each; the construction of gaols has been sanctioned at Seetapore, Darjeeling, and Bangalore, as well as in the Central Provinces; and a general scheme is under preparation for providing such accommodation in Mysore; whilst 30,000 *l.* is being laid out in the erection of police buildings in the Central Provinces and the Punjab.

Sites for two new civil stations in the Central Provinces have been selected, and considerable progress has been made with the necessary buildings, at Wurdah in the midst of a large cotton district, and at Khundwa, the head quarters of Nimar.

10. Quarries and Mines.

The Hurdwar quarries in the North Western Provinces were worked during the year, to ascertain what quantity of good stone they would afford at a moderate cost; but, as it has been found that there is not much procurable in any one spot, and that better stone can be obtained from Delhi at nearly the same cost, it has been determined not to continue the experiment any further.

A cursory examination of the coal fields of Assam has established the existence of coal mines both at Jaipore and Terap, the latter of which especially are said to promise an unlimited supply of a very superior quality. The Mohpanee coal mines in the Nursingpore district are being worked with success by the Nerbudda Coal and Iron Company; and coal fields have also been discovered in the Chindwara and Chanda districts of the Central Provinces.

11. Reclamation of Land.

Permission has been given for the registration of a company formed for the purpose of reclaiming the salt-water lake near Calcutta; but no decision has yet been arrived at respecting the terms on which the work is to be undertaken.

The "Port Canning Land Investment Reclamation and Dock Company, Limited," has been started with a capital of 1,200,000 *l.*, of which it is understood that half has been paid up; its object is to construct the works necessary for the formation of the town and port of Canning on the Mutlah.

Very

Very important operations are being carried on in the island of Bombay, both by the Government and by private companies, in the reclamation of land from the sea. Among these may be especially mentioned the spaces which are being recovered in Moody Bay, Back Bay, and Colaba, in order to form a terminus for each of the two railways that start from the island, and to obtain additional space for the purposes of building and wharfage.

12. HARBOUR IMPROVEMENTS.

The improvement of the River Hooghly has received attention from the Government of India, by whom Mr. Leonard was deputed to visit the principal works at the mouths of rivers in Europe; and the propositions of that gentleman, involving an estimated cost of 246,200 *l.*, are now under consideration.

On the western side of India, the wharf wall at Carwar was completed to a length of 845 feet, and about 25,000 *l.* was spent on the wharf road. Since the close of the year, the works, comprising a lighthouse, a pier, a wharf wall, and a wharf road, have been brought to a conclusion; the total cost was about 125,000 *l.*, and everything appears to have been done which can be required from the Government for any traffic likely to spring up within the next 20 years.

Operations have for some years been in progress to remove the bar which obstructs the harbour of Kurrachee, by narrowing the opening through which the tide flows, so that the stream may have greater force, and by protecting the entrance by means of breakwaters; the bar is, however, reported to have considerably lengthened, and the depth of water to have decreased. Within the harbour much progress was made, and the Napier Mole Bridge completed; a jetty was being constructed to a length of 1,064 feet, of which only 336 remained unfinished; and the east pier, intended to be 1,500 feet long, has reached a length of 1,280 feet. Owing, however, to the doubts entertained as to the ultimate result of the works, the opinion of a very eminent firm of harbour engineers has been recently taken on the advisability of continuing the operations, and, on their reporting unfavourably on the principle adopted, directions have been given for suspending all work except such as may be necessary to maintain the stability of the portion already constructed.

13. LIGHTHOUSES.

The lighthouse on the Alguada Reef, off Cape Negrais, the south-west extremity of Pegu, was completed by Lieutenant Colonel Fraser, of the Royal (Bengal) Engineers, during the year under review. Early in 1857, that officer was deputed to make the requisite survey and preliminary investigations; and in December 1859 he was authorised to undertake its construction. The first stone was laid on the 14th of February 1861; and, on the 23d of April 1865, a first class revolving light was established on the granite tower, 144 feet above high-water mark, and visible in clear weather from a distance of 20 nautical miles.

Another lighthouse, at Double Island, on the coast of Tenasserim, was nearly finished in the year under review, and the light was for the first time shown on the 4th of December last.

IV. JUDICATURE, LEGISLATION, AND POLICE.

In the year 1861 an Act of Parliament was passed, abolishing the Supreme Courts of Judicature which held jurisdiction over the Presidency towns, as well as the Sudder Courts which presided over the revenue and criminal litigation of the provinces, and substituting for them one High Court at each Presidency, which, uniting the legal acquirements of the judges appointed from England with the intimate knowledge of Indian law and the feelings of the natives possessed by those trained in the Civil Service, combined the powers and authorities of both the former Courts. These High Courts consist of a Chief Justice and a limited number of judges, who must be barristers of not less than five years' standing, members of the Civil Service of ten years' standing who have been Zillah or Circuit Judges, or persons who have either held judicial office in India, or been pleaders at the Indian bar for a certain time. Provision was also made for the future establishment of a High Court, should Her Majesty see fit to erect one, in any portion of the Indian territories not already included within the local jurisdiction of one of the High Courts.

In 1862, High Courts were, accordingly, established at Calcutta, Madras,

and Bombay; and among those selected as judges on the first formation of the Calcutta Court was a native of India, Baboo Sumbhoonath Pundit.

The working of the High Courts has been very satisfactory, and the arrears of business have been so far disposed of that it is contemplated to reduce the number of judges on the occurrence of vacancies on the bench.

Amended Letters Patent have recently been framed for the several High Courts, making such alterations as experience has shown to be desirable.

A Royal Commission, presided over by Sir John Romilly, was appointed in 1853, to consider the reform of the judicial establishments, judicial procedure, and laws of India. The Commissioners, after devoting much time and labour to the subject, produced two admirable codes of civil and criminal procedure, and a penal code, which is substantially the same as that prepared by the Commission over which Lord Macaulay presided at Calcutta. These codes, under the titles of Acts VIII. of 1859, XXV. of 1861, and XLV. of 1860, respectively, have been introduced into the greater part of India with marked success.

In 1861, a further Commission was appointed to prepare a body of substantive law for India, as well as to consider other matters connected with the improvement of the legislation. The first portion of their work was embodied in Act X. of 1865, and comprised the law of succession and inheritance generally applicable to all classes domiciled in British India other than Hindoos, Mahomedans, and Buddhists, each of which portions of the population has laws of its own on the subject.

An Act which was passed to consolidate the law relating to Courts of Small Causes in the Mofussil (No. XI. of 1865), gave power to the local Governments to extend the jurisdiction of such Courts to suits for an amount not exceeding 100 *l.*, and provided also for the creation of the office of Judge Extraordinary, by the local Government investing some persons with the powers of a Judge of a Small Cause Court for a limited period. By these means any sudden increase in the business of the Civil Courts can be conveniently met, and provision is made for the disposal of petty litigation, without compelling complainants to have recourse to an appeal, and without depriving them, in any considerable degree, of the securities for justice afforded by the appeal system.

By Act XIII. of 1865 the system of grand jury was abolished in the Presidency towns, a record by the Clerk of the Crown, under a written instrument from the committing justice or magistrate, in which the offence is stated, taking the place of the charge of the grand jury. It was also provided that the High Courts should be empowered to exercise original criminal jurisdiction, under commissions from the respective Governments, in places other than the Presidency towns.

Doubts having arisen respecting the validity of certain marriages in India celebrated by unauthorized persons, an Act was passed in 1864 (No. XXV.), rendering valid all such marriages which were not otherwise invalid, and providing that, in future, all marriages must be solemnised by ministers of religion who have received episcopal ordination, or are clergymen of the Church of Scotland, or who have been specially licensed by the Government to perform marriages; provision was also made for the licensing of persons to solemnise marriages among Native Christians. In 1865, an Act (No. V.) was passed, re-enacting the main provisions of the previous Act, relieving members of the Church of Rome from the operation of certain clauses, and extending the applicability of the law to the Straits Settlements; it also provided that the regulations respecting the marriage of Native converts should be applied, if desired by the parties, to all marriages of Native Christians, whether converts or otherwise; and it made the licences granted to ministers, to enable them to solemnise marriages, revocable at the discretion of the executive Governments.

Two Acts were passed with special reference to the community of the Parsees, No. XV. of 1865, relative to their laws of marriage and divorce, and No. XXI., defining the law regarding succession to the property of an intestate.

In order to provide more effectually for the education of the selected candidates for the Indian Civil Service in law and the Native languages, it was decided in 1864, that their preliminary training should be completed before they leave England, and that they should be required to pass two years in special

special training in this country before presenting themselves for final examination and admission into the service.

In 1860, a Commission was appointed to consider the measures by which greater economy and efficiency might be introduced into the police force of India, and an Act was passed in the following year (No. V. of 1861), reorganizing the whole system. The civil constabulary has been entirely separated from the military force, and placed under the Civil Government; and the duties of guarding gaols, escorting treasure, and protecting property generally, are made over to the police. The latter receive a certain amount of training, and, in some few corps which had previously belonged to the irregular portion of the army, the organization has been little disturbed; but, as a general rule, the drilling of the police is not carried to such an extent as to destroy their independent power of action; their arms vary according to the nature of the duty on which they are employed. In a recent return, the number of the police is stated at 154,435 throughout the whole of India.

Bengal.

On the original side of the High Court of Calcutta the civil cases under trial in 1864 showed a large increase, as compared with those in the preceding year. The number of appeals was also rather larger, the proportion being about 18 per cent. of those in which appeals were admissible; but the value of property concerned was only about two-fifths of that brought before the Court in 1863.

An increase occurred in the number of suits instituted in the subordinate Civil Courts. After taking into account the cost of these Courts, the stamp fees are found to have produced a net income of 90,135 *l.* to the Government.

In the Calcutta Court of Small Causes, the aggregate number of suits instituted during the year was slightly in excess of those preferred in 1863, but, owing to the extended jurisdiction of the Court, the amount of property under litigation increased by nearly one half. The average number of suits for each day was 137, and rather more than half of those set down for hearing were actually tried.

An Act (No. XXVI. of 1864) was passed by the Government of India, extending the jurisdiction of the Court to suits for sums exceeding 50 *l.*, and it was found necessary, in consequence, to increase the salary of the three Judges, and to appoint a fourth. The receipts during the year from fees, &c., were 21,747 *l.*, and the cost of establishment 13,654 *l.*

During the year under report there were in the Mofussil 32 Courts of Small Causes, and the net charge on the Government, after deducting the income derived from them, amounted to 14,492 *l.* The only self-supporting one was that in the suburbs of Calcutta.

The Governor General having, on the 24th of March 1864, given his assent to an Act (No. XVI.) for the Registration of Assurances, by which it was provided that no instrument for the gift, lease, or transfer of immoveable property should have legal effect unless duly registered, a Registrar General was appointed, with Deputy and District Registrars under him, and a code of rules was drawn up for carrying the Act into effect. In the districts in which it is in operation a considerable income has already been derived from registration fees.

In addition to the Stipendiary Magistrates, there were in the interior of the country 29 gentlemen exercising honorary magisterial powers.

The system of trial by jury, which was in force in certain districts, was found, in spite of occasional mistakes, to work well on the whole; and the orders which have been given to ensure care in the preparation of the jury lists, will, it is hoped, secure a more intelligent class of men than has hitherto been obtained to act as jurors.

The local authorities and the great body of judicial officers are almost unanimous in opinion that the Whipping Act (No. VI. of 1864), by which the offences of theft, extortion, receiving stolen property, and housebreaking, are rendered punishable by whipping, has worked beneficially hitherto.

The Act which was passed in 1859 (No. XIII.) to punish breaches of contract by artificers, workmen, and labourers, only applied to the Presidency towns and the Straits Settlements; but in 1863 and 1864 it was extended to the suburbs of Calcutta and to several divisions of the Bengal Presidency. The magistrates were directed, in administering the law, to look closely to the terms of the contract which they might be called upon to enforce, to satisfy themselves that

it had been made *bonâ fide*, and, in the case of verbal contracts, to require full proof of a clear understanding and freedom of action on both sides when the contract was made. The working of the Act has not been quite so satisfactory as was anticipated on its introduction, a very large proportion of the cases being either compromised or struck off on default of prosecutors.

An Act was passed by the Government of Bengal (No. VI. of 1865), providing for the registration and enforcement of contracts for labour at places to which, by virtue of such contracts, the labourer is to be conveyed at the expense of the employer. Under this Act a minimum rate of wages is secured to the labourer, and protectors and inspectors are appointed to assist them; those who neglect to work may be punished, and deserters be apprehended. It also provides for the cancellation of the contract under certain circumstances.

By the middle of 1864 the whole of the districts in the lower provinces were occupied by the new police, and in the following March a re-arrangement of the circles was effected with the view of reducing their strength and cost. On the 1st of January 1865 the force consisted of 26,591 men, which gives a proportion of one constable to every 1,633 persons.

A proposition was made by the Lieutenant Governor to the Supreme Government, to re-organise the land police of Calcutta and the suburbs, and the river police of the port, as well as to increase the number of European constables in the city, the present force being insufficient to hold in check the criminal and riotous portion of the European population, with whom the native police are unable to cope.

The condition of the village police has also received consideration. At present the zemindar is responsible for the appointment of watchmen, who are maintained either by payments from the village community, or by the assignment of lands from the zemindar's estate, which they hold altogether free, or at a small quit-rent. At the same time, the removal of the watchmen from service, as well as the regulation of their duties, rests with the magistrate or district superintendent of police, and the conflict of interests arising from this double rule destroys the efficiency of the watchmen. A Bill to remedy the evil has accordingly been prepared.

Great success attended the measures which were adopted for the suppression of the crime of administering drugs in order to effect robbery, and for breaking up the gangs of dacoits, or professional robbers, who had lately increased considerably in number in Jessore. Directions were also given to all magistrates to prohibit acts of hook-swinging or other self-torture, when carried on so as to cause a public nuisance, or when there was danger of injury to human life, health, or safety, and they were instructed to enlist the co-operation of influential native landholders in the prevention of such practices. The result was, that in the town of Calcutta no case of hook-swinging occurred during the Churruck festival, and in the suburbs there were only three instances.

The rate of mortality in the gaols, which in the year 1854 was 6·14 per cent., had risen in 1858 and 1860 to upwards of 13 per cent., owing to the evil effects of overcrowding, and to serious outbreaks of cholera and dysentery in the prisons; but the measures adopted to relieve the most crowded prisons, and to improve the diet of the convicts, have caused the proportion of deaths to decrease very considerably during the last four years, and in 1864 it was only 6·17. Special attention has been directed to the improvement of the sanitary arrangements of the great gaol and house of correction in Calcutta, which have for the first time been placed under the control of the Prison Department. The gross cost of the prisoners' maintenance during the year was 90,310 *l.*, more than one-third of which, namely 34,175 *l.*, was repaid by the labour of the prisoners, and the profits on the articles manufactured by them. The average cost was 3 *l.* 1 *s.* 9 *d.* per man.

A system of central jails is about to be introduced, each of which is to be adapted for the reception of 1,000 convicts, of whom 200 will be provided with separate cells, and the remainder distributed in wards containing 32 persons in each. The gaols will be under the sole charge of medical officers specially selected for the duty, and a garden will be attached of sufficient extent to furnish the fresh vegetables necessary for the prisoners, and to give every convict his turn of work in the open air. It is hoped that this measure will conduce to economy of management, to the secure custody and health of the prisoners,

prisoners, to efficiency in the punishment and prevention of crime, and to the reformation of criminals and conversion of unproductive consumers into profitable labourers.

A penitentiary is being constructed at Hazareebaugh, for the incarceration of European convicts who are sentenced by the High Court to imprisonment or penal servitude for periods exceeding two years, and also of prisoners sentenced by military courts to punishment by penal servitude.

North-Western Provinces.

In accordance with the power granted to Her Majesty in the High Courts Act of 1861, it was determined to establish a High Court for the North-Western Provinces, having jurisdiction over the districts hitherto subject to that of the Sudder Court at Agra, and Letters Patent have been recently sent to India for the purpose.

The litigation in the Civil Courts increased during the year, owing, in some measure, to the commercial advancement of the country, and the contemplated introduction of the permanent settlement. In the disposal of suits in the Courts of the Sudder Ameens and Moonsiffs, a degree of dispatch was attained which cannot be greatly exceeded, without incurring the risk of having cases decided after imperfect investigation.

The regular appeals pending in the Sudder Court have been reduced from 360 to 49, and the special appeals from 2,069 to 474; and most of those awaiting decision are of less than three months' standing. This result, though partly due to the augmented staff of translators, is, in a great measure, owing to the zealous and unremitting exertions of the judges of the Court.

Small Cause Courts were in operation at Benares, Allahabad, and Agra; and a new one was constituted in Deera Doon, for the convenience of the residents at Mussoorie and Landour.

As regards criminal justice, the number of persons brought to trial was greater than in the preceding year—a circumstance attributable to the distress among the poorer classes, owing to the high price of food consequent on a bad harvest.

The employment of honorary magistrates has, on the whole, proved successful; and their services have been found most useful in the decision of petty cases, in which their personal knowledge of the peculiar customs and observances of the native community has enabled them more readily to arrive at a satisfactory decision.

The Whipping Act, under which 2,167 persons were sentenced during the year, has considerably relieved the overcrowded gaols, and tended to prevent the moral deterioration of nearly 2,000 persons convicted for the first time, one-third of whom were juvenile offenders.

The new constabulary has already shown itself to be somewhat superior to the force which existed under the old system in that which has hitherto been considered its weak point, namely, the detection of crime; but it is in their *morale* that the more marked improvement is discernible, complaints of corruption, ill-treatment, or extortion being rarely brought against them.

An Act which was passed by the Government of India (No. II. of 1865), to provide for the maintenance of the rural police in the North-Western Provinces, amended the existing law in two points in which it was faulty, namely, in pressing unequally on the proprietors of land, and in rendering appointments of village watchmen, when once made, unalterable during the time of the settlement.

From February to May, typhoid fever prevailed to a lamentable extent in the Agra and Futtehghur gaols; but, as it appeared to have been brought into the prison from outside, a system of quarantine was established for all fresh admissions, and the result was that, for the remaining nine months, there was no outbreak of epidemic fever in any of the prisons, and the per-centage of deaths was reduced during the year from 7·2 in 1863-64 to 6·42 in 1864-65.

Oude.

Statistics which were called for in Oude, respecting the relative number of young boys and girls, appear to show that the crime of infanticide, though not altogether eradicated, is confined to a few Rajpoot villages in each district; and there can be no doubt that the exertions of the Government officers, aided by the co-operation of the great landowners, have very materially checked this inhuman practice.

Punjab.

In the Punjab, the increase which took place in the number of regular suits appears to be partly due to the investment of additional capital in the purchase of agricultural produce, and the growing value of proprietary rights, both of which are results of general prosperity, and partly to the improved facilities for the disposal of civil suits. Upwards of one-third of the litigation occurred between capitalists and the agricultural community.

The marked increase observed in the number of suits relating to marriage and betrothal, which has nearly doubled in the last five years, appears to indicate that the means of evading this species of contract are, or are supposed to be, greater now than formerly; and it is particularly to be regretted that in Kangra, where there are special native tribunals for disposing of these cases and checking their occurrence, they have more than doubled in the year under review.

The Small Cause Courts have now been established for nearly four years; in 1864 they were eight in number, and upwards of a fifth of the litigation of the whole province was disposed of by the judges of those courts, more than half of that which occurred in the districts where they were at work being brought before them. The district officers and commissioners, who are best qualified to form a judgment on the effect, bear decided testimony to their popularity and success, and to the relief afforded by them to the ordinary district courts; while the statistics show that the favour with which they are viewed is not the result of undue acquiescence in the claims of plaintiffs. They appear, however, to be better adapted for large cities and stations than for the agricultural population of the interior.

A re-adjustment of the scale of costs having been suggested, the Lieutenant Governor is of opinion that, while an increase on the larger suits might be beneficial, it is not desirable to reduce the expense in the smaller cases. The existing charge does not prevent free resort to courts of justice, for false and exaggerated claims are even now too numerous; and at present a suitor in a district court, in a case of less than 32 *s.* value, can institute his suit, and summon the defendant and an unlimited number of witnesses, from the remotest corner of the province, for a consolidated sum of 2 *s.* 9 *d.*

The Jageerdars, or native gentlemen, who were invested with magisterial powers within the limits of their estates, have, on the whole, performed their functions satisfactorily, though not quite so well as the honorary magistrates for the cities of Lahore, Umritsur, and Delhi, owing to their being less under supervision. 3,919 cases were disposed of by the unpaid agency of the gentry and burghers of the province; and in one respect, namely, the apportionment of fines to the means of the offenders, they are said, as a rule, to show greater discrimination than the European magistrates.

Resort has not yet been had to the jury system; but, in trials held before the Sessions Courts, assessors are invariably used, and in only 29 out of 292 cases has the opinion of the majority been at variance with that of the judge.

Greater accuracy in the knowledge of law and procedure has been exhibited by the judicial officers since the Indian Penal Code and the Code of Criminal Procedure were introduced into the Province.

An important State trial was held by Sir Herbert Edwardes, the Commissioner of Umballa, in which 11 persons were charged with the offence of abetting the waging of war against the Queen. The treason was hatched 40 years ago at Patna, by Syud Ahmed, the founder of the religious sect of the Wahabees in India; and the discovery was due to the fidelity of a serjeant of mounted police, named Gauzan Khan, who, while going his rounds one day in May 1863, in the Kurnaul district, observed four Bengalees proceeding along the road. He fell into conversation with them, and, having ascertained that they were emissaries from the Wahabee fastness, near Sittana, on their way back to their native province to make arrangements for forwarding supplies of men and money to the frontier, he at once arrested them as traitors, in spite of the offer of a bribe which, they stated, would be paid by one Jaffir Khan, a scrivener in the neighbouring town of Thaneysur. The magistrate before whom the men were brought refused to commit four peaceable wayfarers on the mere charge of the police serjeant, unsupported by evidence; but the latter, feeling that his word had been doubted, determined to sift the matter to the bottom; and, as he was unable to leave his duties, he instructed his son to join himself to the Wahabees, and not return until he could bring the names of the conspirators within the British territory, who were

were aiding the fanatics outside. Risking the double danger of being treated by the British outposts as a traitor, and by the Wahabees as a spy, the son crossed the border, joined in the attack which in July 1863 was made upon Sittana by the Wahabees, whom he completely deceived, and at length returned with the secret that Moonshee Jaffir, of Thaneysur, was the great man who passed up the Bengalees and their arms. This information, corroborating the suspicions arising from the previous reference to him as being ready to pay the bribe for the release of the prisoners, led to the immediate arrest of Jaffir, whose papers revealed the whole plot. The telegraph was set in motion, and in a few hours Mahomed Shuffee, the Government meat contractor, Yahiya Ali, chief priest of the Wahabees at Patna, and the other conspirators, were placed in confinement. At the trial it was proved that the accused had, in various degrees, been the agents for the collection and transmission of men and money, through Patna, Thaneysur, and Umballa, to the Queen's enemies, the Hindustani fanatics at Mulka and Sittana, both before and during the time of the recent military operations at Umbeyla. Three of the prisoners were sentenced to death, and eight to transportation for life, but the capital sentences were commuted. Mahomed Shuffee subsequently made a full confession, which enabled the Government of Bengal successfully to prosecute Moulavee Ahmedoollah, an influential citizen of Patna, who was also condemned to death, but the capital sentence was not carried into execution.

The Arms Act has worked well; the period for which licenses are granted has been increased from one to three years; and instructions have been issued in some districts for an additional number being given to agriculturalists and native huntsmen for the protection of their crops from injury by wild pigs and deer.

The police returns show an increase in the reported cases of crime, but the number of non-bailable offences is less than the average of the last five years. In the Cis-Indus districts, where the new system of police is in force, the per-centage of increase was 22, and in those beyond the Indus, where the old system is still maintained, it was not less than 45. The apparently greater prevalence of crime is believed, so far as regards the less heinous offences, to be attributable, in a great measure, to an improved system of registration, and to the increased confidence of the people in seeking the aid of the police. At the same time, instances of murder and culpable homicide have risen from 264 in 1863, to 359 in 1864, without any assignable cause; but it has been suggested that the absence of political excitement tends to develope those domestic and village feuds which are the cause of so many assassinations.

Cases of dacoitee, highway robbery, and burglary, were also much more frequent in the year under review; almost all those which have occurred in the last two or three years between Kurnaul and the Ravee, were perpetrated by an organised body of Jats, long established in Ferozepoor and the adjoining Native States, who had in a great measure discontinued their inroads into the British territory, after the annexation of the Punjab, but who of late have been regaining confidence. Great difficulties lie in the way of an investigation into crimes committed on the frontier of the independent territories of Shekawattee, Loharu, Jeypoor, &c.

To whatever cause the increase of crime is attributable, it is not to the change in the police system or to any general deterioration of the working of the force, seeing that the proportion of cases brought to trial is greater, and that of acquittals less, than in the preceding year. Measures are being steadily matured to enable the police to compete more effectually with organised crime; numerous captures have been lately made among the more northern gangs; and it is hoped that the haunts of the plunderers who infest the Native States and adjoining British territory, will likewise be discovered.

In some of the districts where honorary police officers are employed, they have proved far from efficient; but, on the other hand, some have shown themselves of great value, and the institution is considered a most important one, as affording a means of ultimately enabling the bulk of the people to apprehend and take part in our system of administration.

Reformatory villages were established on Government land in Sealkote, where colonies of thieving tribes were planted, and supplied with seed and implements of husbandry. The scheme gave early promise of success, but

afterwards resulted in disappointment; a careful inspection has, however, been effected, and improvements, suggested by experience, have been carried into operation.

Female infanticide is still practised, though not to any great extent, by some of the higher Jat tribes and Rajpoot families. Few children are destroyed by violent means, but female infants are purposely allowed to die from neglect. Much has been done in the way of prevention, by making the suspected classes feel that they are watched, and enlisting native public opinion against the custom, and large meetings were held during the year in several districts, similar to those which were convened in 1853.

One cause for this unnatural repugnance to female offspring is the extravagant expenditure at the time of marriage, which, in the case of some of the higher tribes, falls to a great extent on the father of the bride. The folly of thus wasting their substance on marriage feasts has long been admitted by the native community, but few had the moral courage to resist a custom sanctioned by long usage and the influence of the priestly caste. Of late, however, signs of greater independence have appeared; and in May and June of 1864 a movement was made spontaneously by the citizens of Delhi, who held several large meetings, at one of which an essay was read by a native gentleman of high caste, exposing the folly of the practice, and pointing out that it was opposed to the earlier precepts of the Hindu religion. Eventually, 47 castes and tribes solemnly agreed, through their representatives, to certain reduced rates of expenditure, especially in respect of the fees of the family priests and perquisites bestowed on Brahmins and religious beggars; and a standing committee was appointed to see that these self-imposed rules are duly carried out. The proceedings of the meetings and the essay above mentioned were printed in the vernacular by the Government, and circulated through the province; and the movement has already been productive of good effect in many quarters.

The total number of the police in the Punjab is 15,258, and the cost 260,000 *l.*, in addition to 3,796 enrolled constabulary, who are paid by the local revenues of the towns, at an expense of 30,060 *l.*

An Act (No. XIX. of 1865) was passed, defining the existing powers of the ordinary courts of civil and criminal jurisdiction in the Punjab, and giving to them a legal basis, in the same manner as had been previously done in some of the other non-regulation provinces.

A further Act, No. XXIII. of 1865 (which was re-enacted with a slight modification as Act IV. of 1866), amended the constitution of the Chief Court of Judicature in the Punjab and its dependencies, by providing the province with a tribunal competent to try European British subjects for criminal offences previously cognizable by the High Court of Bengal alone. It also provides a court of original jurisdiction for hearing and finally determining civil suits of great importance in lieu of the existing law under which all such suits must be heard in the first instance in the district courts, and go through the ordeal of a double appeal to the Commissioner of the Division and the Judicial Commissioner, before the decision of the highest court can be obtained; and, by declaring that the chief court shall consist of two or more judges, at least one of whom shall be a barrister of five years' standing, it will secure the presence on the bench of the highest appellate court of an officer acquainted with English law, as well as greater uniformity in the interpretation of the law.

The rate of mortality in the gaols, which in 1863 was 6·71 per cent., rose during 1864 to 8·67 per cent.; this, which is nearly double the average of the previous 10 years, is entirely the result of a very fatal epidemic fever which raged at different times in eight gaols, in one of which, that at Umballa, 31 per cent. of the prisoners were carried off, notwithstanding every effort to stay its progress. Excluding those gaols, the mortality in the remaining 18 was only 1·48 per cent.

With a view of avoiding the recurrence of such a calamity, particular attention will henceforth be devoted to the existence of infectious diseases in the interior of districts, and, where they are found to be prevalent, newly convicted prisoners will be kept in quarantine for a suitable period before being allowed to mix with others. A better scale of dietary has also been sanctioned.

Owing to this change of diet, the improvement of clothing and bedding, and the increased price of grain and materials for clothing, the expenditure on gaols was greater than in the preceding year by 9,081 *l.*

The profits on the gaol manufactures, and the value of labour of the prisoners employed

employed in the service of the Government, are estimated to have amounted to 14,670 *l.* A large order for carpets was executed in the Lahore gaol for a dealer in London; the manufacture of porcelain was carried on experimentally both at Lahore and Delhi, but with no great success, from want of experienced hands.

Central Provinces.

In the Central Provinces the native judges in the interior of the districts have been brought specially under instruction, and, though still far from what they ought to be, are much improved.

Litigation continues slightly to increase. Of the suits for debt, those between bankers and agriculturalists bore a less proportion to the sum total than might have been expected; this is perhaps attributable to the fact that the prevailing tenure is that of small landlords, who usually lend both money and seed to their tenants, and, as the latter cannot so readily break with their landlords as with the money lenders, it is seldom necessary to sue a tenant for the sum advanced to him.

The two Small Cause Courts of Nagpore and Jubbulpore were at work during the year; they are held in high estimation by the people, and the presiding judges perform the duties well and expeditiously.

The new rules for the admission of pleaders were in force, but none of the candidates succeeded in passing the examination in 1864. Subsequently, however, they have been more successful, and there are now about 20 authorised pleaders in the courts.

In criminal offences there is an increase on the whole; but this is in great part owing to the willingness of the people to bring their small grievances before the courts, and a slight reduction appears in the number of non-bailable cases.

All kinds of murder and homicide show a sensible decrease; and of the cases which did occur several were committed by madmen. In the eastern or Chutteesghur country there were instances of murder committed on supposed witches. Cases of poisoning were rare.

There was a marked diminution in the instances of dacoitee, which is partly due to the extinction of political trouble in Sumbulpore. Besides this, however, the old gangs have been broken up, and the professional dacoits hunted down, 91 being captured during the year.

Despite the multiplication of police posts on the trunk roads, and patrolling day and night, the mail is sometimes attacked; and, in a country where there are such unusual facilities for the commission of the crime, the complete suppression of these robberies is almost beyond hope. Infanticide is practically unknown; and Thuggee has not reared its head since its extinction by the special department.

There is an increase under the head of burglary and ordinary theft, due in part to improved reporting; the sufferers, finding that they are not forced to prosecute in petty cases unless they choose to do so, have little hesitation in declaring their wrongs. The proportion of stolen property which is recovered has risen to 34 per cent., and the successful prosecutions of receivers of stolen goods are increasing yearly.

The honorary magistrates were 41 in number, of whom all but three were natives of India. They have decided 4,005 cases, and done substantial justice, though their attention to procedure is not very strict.

The police, including those paid from local funds, comprised 8,338 men, and cost 124,654 *l.* The proportion of apprehensions and convictions to the number of cases reported indicates much improvement; in detective ability, however, they are still deficient. The civil officers testify to their general fair repute in dealing with the people, among whom they are popular rather than otherwise; but the number punished for corruption or oppression shows that the supervision is strict, and that there is no lack of prosecutors when they do misbehave themselves.

Many of the suggestions made by the Gaol Committee in 1864 are already in full force in the prisons of the Central Provinces, such as the prevention of overcrowding, where possible, and of sleeping on the ground; and attention has been paid to ventilation, conservancy, clothing, diet, &c. The mortality has decreased in spite of the outbreak of an epidemic in eight of the gaols, and, instead of 10·14 per cent. in 1863, was only 7·67 in 1864. Four new central and five district gaols are being built.

Hyderabad assigned districts.

In the Hyderabad assigned districts the delay in the disposal of civil business was very great, owing to the enormous extent of jurisdiction of all the courts, and the paucity of officers to preside in the higher ones; but this evil will be remedied by the recent increase in the number of districts and officers, and establishment of four purely civil courts.

The number of heinous criminal offences increased in an alarming degree during the year 1864, while in very few cases of dacoitee or robbery were convictions obtained, and of the total value of stolen property less than 14 per cent. was recovered.

The inability of the police to cope with the rapid spread of crime led to the appointment of Major Younghusband as Inspector General, and to the re-organization of the whole body, both the number of men and the rates of pay being increased. The vigorous measures adopted by that officer so completely broke up the combination which prevailed among the dacoits, and stripped them of their power, that, whereas during the cold season of 1863–64 upwards of 8,000*l.* worth of treasure was plundered, in the corresponding months of 1864-65 not one rupee was lost. Although, however, the police have much improved, they are still very slow in the detection of crime; and much remains to be done in improving the discipline and organization of the force.

The health of the prisoners was good, and the deaths only two per cent. of the average number in gaol.

British Burmah.

Recorders' courts were instituted at Rangoon and Moulmein, under Act XXI. of 1863, and the registrar of each court was appointed the Judge of the Court of Small Causes in the town. In the other parts of the province there are 121 civil courts, of which 89 are presided over by Burmese or Karen officers.

In criminal justice the recorders have the powers of sessions judges, and also are authorized to try all European British subjects charged with offences other than those punishable by death.

The police numbered 6,399, and their cost was 124,854*l.* They are principally chosen from the Burmese and other races of the country, except in the seaport towns, where they are chiefly Indians; and their progess is, on the whole, satisfactory. The predominating crime is gang robbery; the dacoits enter the province from the territories of Siam or Burmah, and easily escape across the boundary before they can be overtaken. The Burmese Government appears anxious to prevent these attacks, but no effective assistance has yet been rendered by that of Siam.

The failure of the police to make any arrests in nearly half the cases of murder is to be regretted; but they have been fairly successful against dacoits in the frontier districts; their discipline has been well maintained, and their conduct towards the people is very satisfactory.

Four new gaols are in course of construction. The health of the prisoners has been good, except at Moulmein, where the mortality was excessive among the convicts transported from India.

Straits Settlements.

In the several courts of the Straits Settlements, there has been no falling off in the civil business.

In criminal cases, the great difficulty arises from the Chinese secret societies, as nobody would dare to denounce a member if he were accused of a serious crime; and the feuds between them frequently lead to disturbances, one of which in 1864 caused the loss of 20 lives and the destruction of a whole village.

The conduct of the police was satisfactory at Singapore, but not equally so in Penang and Malacca, although in individual cases great resolution was shown. The frontier stations are of great service in protecting British subjects from the raids of their marauding neighbours.

The health of the prisoners in gaol was remarkably good. The value of their labour, taking the rates at present in force, bore a very high proportion to their cost, and at Singapore especially the gaol was almost self-supporting.

Madras.

The working of the Whipping Act in the Madras Presidency has proved beneficial, so far as can yet be judged.

The Registration Act was only in force for a few months before the close of the year; a Registrar General was nominated, the Presidency was divided into 22 districts, the deputy collector being in most cases selected for the office of district registrar, and 326 deputy registrars were appointed under them.

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The only State trial was that of certain Khonds, a wild people living on the northern frontier of the Presidency, 10 of whom were convicted of being implicated in a partial rising which occurred in 1863.

The total strength of the police was 23,624, besides 3,030 village and local watchmen, and the cost to Imperial funds was 348,439 *l.* Although the improvement in the character of the force cannot be very rapid, the service is becoming more popular, and candidates for employment in all ranks come forward more readily, while a general earnestness in acquiring knowledge is displayed. Marked progress is being made by the native magistrates in every district, though they still show a tendency to rely too much on the police.

The unfavourable season and high price of grain led to an increase in the number of the less heinous offences against property. Dacoitee and gang robbery are subsiding, and there was no case attended with murder. In Cuddapah, where dacoitees had been most frequent, three robber bands were broken up, and 60 persons transported.

The rate of mortality in the gaols was very high, 12½ per cent., which is attributable, in a great measure, to the crowded state of the prisons. One new gaol has been completed during the year, three others are in progress, and it has been determined to build three additional central gaols, in order to provide for an increase in the number of prisoners.

Bombay.

The number of suits filed during the year in the civil courts of the Bombay Presidency was 145,456, or more than half as many again as in 1863, when only 90,728 suits were presented. Decisions were passed in 121,474 cases.

Of the 673 pleaders, all natives of India, who practised during 1864-65, in the regulation courts, 48 were acquainted with English, and 67 had certificates of a legal education. This shows a considerable increase when compared with 1863-64, in which year the numbers were 38 and 44 respectively, and bears testimony to the growing zeal for the acquirement of knowledge befitting the profession.

Although the number of cases decided by the court of small causes at Bombay decreased by 462, the amount of the fees was 6,255 *l.* more than in the preceding year; and the surplus of the receipts over the expenses of the court increased from 6,512 *l.* in 1863-64 to 7,536 *l.* in 1864-65. This excess is owing to the extension of the jurisdiction of the court to suits not exceeding in value 100 *l.*, and the returns of the cases filed, as compared with those previously disposed of by the Supreme and High Courts, give a satisfactory evidence that a public want was supplied by the passing of the Act of 1864, which conferred the extended powers on the courts for small causes in the Presidency towns.

Of the five small cause courts in the Mofussil, the three at Ahmednuggur, Poona, and Kurrachee, showed a surplus of receipts over expenditure, while in those at Ahmedabad and Belgaum the charges were greater than the fees received.

The statistics of crime throughout the Presidency show a considerable increase in the year 1864-65, the number of offences, trials, and convictions, being about one-third more than in 1863-64; but this was principally due to the number of small burglaries and minor thefts, originating in the distress caused by the dearness of provisions, and in Poona, where the burglaries were unusually numerous, the proportion of convictions was nearly 80 per cent. of the offences committed.

A plot to disturb the peace of Guzerat, and overthrow the Government of the present Guicowar, was hatched at Dwarka, by a supposed relative of Nana Sahib, who ventured to Baroda with his adherents, intending to concert a general rising throughout the province, in which use would have been made of the Wagheers and other disaffected persons. The conspiracy was, however, discovered by the Guicowar, and, with the magistrate's assistance, the chief mover in the plot, together with all but one of his adherents, was arrested, sent to Baroda, and tried before his Highness's tribunal, by whom they were sentenced to imprisonment for various terms.

An endeavour was made by a Brahmin to incite the men of the Southern Mahratta horse to mutiny, when that regiment was about to be disbanded, but the attempt proved abortive, and the Brahmin was sentenced to transportation for life.

The condition of the Bombay police being in a very unsatisfactory state, Sir

George Clerk, when Governor of that Presidency, in 1848, suggested a complete reform, by separating the police entirely from the control of the Court of Foujdaree Adawlut (or chief court of criminal justice), and placing it under the immediate superintendence of the Government, by abolishing the military element which pervaded the police corps, and by re-casting and reducing the establishment. The question was further considered by Lord Falkland's Government and the Government of India, and finally the change was carried out in 1852 and the following year. Some minor reforms and a reduction of the numbers were effected by Sir George Clerk in his second administration, in 1861, and it was this system of the Bombay police which the Government of India took for its model in the measures which have been above described, as embodied in Act V. of 1861.

In 1864 it was proposed to reduce the police establishment in Bombay still further, and to increase the allowances of those retained, whose pay had become inadequate, owing to the rise of prices. By this measure it was thought that the efficiency of the force would be improved, at the same time that a saving of expenditure was effected; and, in order to determine on the course to be followed, the Inspector General of Police visited the Bombay Presidency, but the new scheme had not been introduced at the close of the year.

To some of the police batons only were supplied, in place of swords, and the measure was found to work satisfactorily.

The unhealthiness of Canara is a serious drawback to its material improvement, and is a main cause of the difficulty found in maintaining the efficiency of the police in that district. Cotton thefts, however, which were formerly so rife in the town of Coompta, have ceased entirely, owing to their vigilance, and to the example which was made in the case of a vessel laden with stolen cotton, when, although the owner, after he had been convicted, escaped on appeal, the Customs' clerk, whose forgery in the manifest facilitated the robbery, was sentenced to 12 months' rigorous imprisonment.

Crime increased in Sind, and property was very insecure. A scheme is under consideration for improving the police establishment in this province, as well as in the rest of the Presidency.

One gaol, at the head quarters of the new district of Kulladghee, was added to the number existing in the previous year.

The average prison mortality, which in 1863-64 was as high as 7·8, fell to 4·3 per cent. in 1864-65, notwithstanding that the heat was unusually intense, and cholera generally prevalent.

V. Education.

In the year 1854, it was determined by the Home Government to take more decided measures than had previously been adopted, for the purpose of promoting a system of general education which should diffuse throughout India a knowledge of the improved arts, science, philosophy, and literature of Europe, of such a character as might be practically useful to the people in their different spheres of life. This object it was felt might be most effectually accomplished, by encouraging the study of the English tongue, in all schools of a sufficiently high class, at the same time that instruction in the vernacular languages of India was duly cultivated.

A department of education was accordingly established under each government or lieutenant governorship, in lieu of the boards and councils by which all measures connected with instruction had previously been superintended; and a staff of inspectors was appointed, to examine the pupils in the Government colleges and schools. Universities, modelled on the system of the London University, were instituted at Calcutta, Madras, and Bombay, with the power of conferring degrees on duly qualified candidates, it being provided that the examinations should not include subjects connected with religious belief, and that the affiliated institutions should be under the management of persons of every variety of religious persuasion, as is the case in England. The affiliated colleges consisted, in the first instance, of those which had been established by the Government, by individuals, or by religious and missionary societies, whether the instruction imparted was Anglo-vernacular or exclusively oriental; and scholarships were attached to them, to be held by the best students of the lower schools.

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The attention of the Government was not, however, confined to the promotion of education among the higher classes. In order to convey the same invaluable blessing to the great mass of the people, provision was made for the inspection of the zillah or district schools in which the English language forms the chief medium of instruction, as well as of the tahsilee and other inferior schools which, with more or less success, attempt to give the highest class of learning capable of being imparted in the native languages. The system, which had previously existed, of affording encouragement by the aid of scholarships, was also further extended. Nor were the indigenous or elementary schools overlooked, the most promising pupils being rewarded by scholarships in institutions of a superior order. Normal or training schools for masters were also established in the several Presidencies.

At the same time, it was felt that the utmost exertions of the Government would be inadequate to the necessities of India, unless they were supplemented by the continued efforts of benevolent individuals and societies which had already largely contributed to the spread of education throughout the country; and, in order to afford the utmost encouragement to those endeavours, without detracting from their spirit of self-reliance, it was determined to adopt the system of grants in aid, which had been successfully carried out in the Educational Department in England. Basing it on an entire abstinence from interference with the religious instruction conveyed in the schools assisted, it was decided to give aid to all schools in which a good secular education was imparted, provided that they were under adequate local management, and that their managers would consent to the schools being subject to Government inspection, and would agree to any conditions that might be laid down for the regulation of the grants. It was anticipated that, with the gradual advance of this system, it would become practicable to discontinue the direct agency of the Government, but the extent to which the change could be carried out in any particular province was left to the discretion of the local authorities, with reference to the special circumstances of the district.

Complaints, however, were subsequently received that, in consequence of the rules prescribed by some of the Local Governments, considerable difficulty was experienced by voluntary and independent bodies or persons in establishing schools on the grant-in-aid principle, and, accordingly, early in 1864, the attention of the Government of India was drawn to the question with a view to the removal of any impediments in the way of the extension of the system. They were at the same time desired to adopt such rules as might, while affording the requisite security for the due application of the grants, as little as possible interfere with the free action of those who might seek, under their operation, to promote the spread of education among the masses of the people. A report has also been called for on the merits of the several systems in force at the different Presidencies for carrying out the instructions of Her Majesty's Government on the subject.

In the measures adopted for imparting education in India, great care has always been taken to avoid the suspicion of schoolmasters making use of their position under the Government for the purposes of proselytism, and the conditions under which the masters of Government schools are allowed to impart religious instruction are, that it must be sought by the pupils of their own free will, and must be given out of school hours, so as not to interfere with other teaching, while the inspectors are not permitted to notice it in their periodical visits.

In 1859, Lord Stanley, then Secretary of State for India, reviewed the action of the Government in consequence of the instructions of 1854, and the effect produced on the native mind by the measures which had been adopted. As regards the Educational Department, he considered that all appointments should, as a general rule, be filled by persons unconnected with the civil or military service of the Government. The establishment of universities had not been calculated to excite apprehension among the natives; and, on the only point of difficulty, namely, that of reckoning marks obtained by candidates who voluntarily submitted themselves to examination in the works of such authors as Paley and Butler, it was decided that no computation should be allowed, thus removing all possible ground for misapprehension. The institution of training schools had not been carried out to the extent originally contemplated, and there was a great want of masters acquainted with the English language. The Anglo-vernacular colleges and schools were in a satisfactory state, and were not unpopular with the

natives. Except in the North Western Provinces, no general plan had been decided on for the extension of vernacular education, and instructions were given to make the greatest possible use of the existing schools and masters. The grant-in-aid system, as hitherto in force, although very useful when applied to English or Anglo-vernacular schools, did not appear suited to the purpose of supplying education to the masses; and it was suggested that the means of elementary instruction should be provided by the officers of the Government, funds being obtained by a cess or school-rate levied on the land, in the manner adopted with regard to the construction or maintenance of roads. The continuance of the system of religious neutrality was enjoined, and a report was specially called for on the feeling with which, in this point of view, the grant-in-aid system was regarded by the native community: the Bible was allowed to be kept in the school library, and instruction or explanation connected with it might be given by the teachers to pupils who voluntarily sought it, but the course of study was strictly confined to secular subjects.

The result of the course prescribed by the Government has been eminently successful as regards the universities, colleges, and higher schools; but much remains to be done in extending the measures which are in progress for the education of the lower classes of the people, a point which much needs the careful attention of the State, both in promoting the establishment of new schools, and in providing for the more careful training of the native teachers.

Bengal.

At the end of 1864–65 the number of colleges and schools under Government inspection in Bengal was 2,271, and the number of students 103,114, as compared with 1,675 schools and 83,679 students in 1863-64, and there were, moreover, 158 private schools, with 5,817 scholars, receiving no aid from the Government, but inspected by the Educational Department. The expenditure for the year was 189,443 *l.*, of which 73,965 *l.* was contributed from local sources of income. The cost to the State for each pupil was about 1 *l.* 2 *s.*

The rapidly growing demand for university education made it necessary to extend to the colleges at Hooghly, Kishnaghur, and Berhampore the system already pursued at Dacca, of instructing the pupils in subjects beyond those required for the first examination in arts, and an additional professor was appointed to each of those colleges, with the special object of preparing the students for the B.A. degree. An assistant professor of Sanscrit also was nominated to the three colleges above mentioned, and to that at Patna. Law classes were established at Hooghly and Kishnaghur, and the opportunity of obtaining a systematic legal education is now afforded at every one of the Government colleges in the interior of Bengal.

The Bengalee class of the Medical College at Calcutta was remodelled, in order to provide more efficiently for the supply of subordinate medical assistants in the Government civil hospitals and dispensaries, and for the training of a superior class of students for the independent practice of the medical profession. For the English department of the college a Professorship of Hygiene has been established.

The total number of students who during the year attended the colleges for special education was 646, of whom 297 selected law, 314 medicine, and 35 civil engineering for their study.

In order to obviate the difficulty experienced in providing qualified junior masters for the English schools, the Lieutenant Governor authorised the formation of an English department in the normal schools at Calcutta, Hooghly, Dacca, and Patna, to which the junior masters of the Government schools will be occasionally sent for short periods to receive instruction in the principles and practice of their profession.

The attempts made to improve the indigenous schools in the Province of Behar by a system of rewards were not attended with much success, and it was found necessary to establish training schools to provide qualified teachers for the lower class of the Government institutions, as well as for the indigenous schools of the province. Four were accordingly sanctioned, for Bhaugulpore, Purneah, Gya, and Chuprah, and three more, on the principle previously in operation at Burdwan and other places, were opened at Rajshahye, Dinagepore, and Rungpore.

To supply the large demand for qualified teachers for the numerous vernacular schools in Eastern Bengal, three additional normal schools were opened at Mymensing, Commillah, and Comercolly.

The number of schools in Bengal, receiving regular monthly assignments under

under the grant-in-aid rules, increased during the year from 649 to 1,019, and the amount sanctioned from 20,434 *l.* to 27,480 *l.* per annum.

The Bishop of Calcutta having carried into effect the proposed removal of St. Paul's School, established especially for the middle class of Europeans and Eurasians, from Calcutta to Darjeeling, the Government agreed to subscribe in aid of the undertaking a sum equal to that which may be obtained from the public during the next three years.

An annual grant of 500 *l.* has been made, to assist the publication of works of literary or scientific importance, and for the general encouragement of literature. One of its objects is to enable the Education Department to give a direct impulse to the dissemination of useful books and periodicals prepared for native girls' schools, and for circulation in the zenanas of native gentlemen. It will also assist the publication of special treatises on practical questions, such as agriculture, horticulture, and the breeding of cattle.

Three scholarships were instituted during the year by the Nawab Nazim of Moorshedabad, for Mahomedan students, and one by the Maharajah of Vizianagram, open to all native scholars of the Calcutta University.

North-Western Provinces.

In the North Western Provinces, the condition of the three colleges of Agra, Bareilly, and Benares was generally flourishing, and the number of students on the rolls was 204, with an average attendance of 170. Scholarships were founded at Benares by the Maharajahs of Rewah and Vizianagram. The higher class schools are four in number, three being attached to the colleges, and the fourth placed at Ajmere. A gratifying proof of the popularity of those of the middle class, which are Anglo-vernacular, was afforded by the fact that, in more than one instance, new schools were established and partially endowed by the people themselves; these schools, which in 1863 numbered 30, rose during the following year to 43. Of the lower class schools there were 3,341, with upwards of 100,000 scholars.

The number of female schools more than doubled, and the attendance nearly trebled, as compared with the previous year; in addition to which increase, 30 such schools were established in 1864–65, by the Suth Sabhá, a society of influential Hindoos in Agra; and the total number of girls' schools at the end of the year was 477, with 9,138 pupils.

The private institutions under Government inspection, of which there are 5,458, show a falling-off in the number of those of the lower class, a result which, taken in conjunction with the increase of the higher class of schools, may perhaps be some evidence that the people are beginning to desire a better education for their children than can be obtained at the hedge schools.

Grants in aid, amounting to 8,093 *l.*, were given to 72 institutions. The number of books printed or purchased during the year for the Department of Public Instruction, most of them in the vernacular, was 370,000, at an average cost of $2\frac{1}{4}d.$ a volume, and the number sold was 185,470.

The management of the Wards' Institution at Benares was very satisfactory; there are 15 wards in residence, and a gradual improvement in moral character has been shown, as well as fair progress in their studies.

Oude.

A scheme of education for the Province of Oude was sanctioned in 1863, but no report of the progress which has been made has yet been received from India.

A Wards' Institution was established at Lucknow, which is also open to the sons of any of the landholders who may wish to avail themselves of its advantages. There are now 14 boys, and an increase to the number is expected; they live in the Kaiser Bagh, and attend the Canning College for six hours daily. They are taught manly English games, and every effort is made to induce them to take physical exercise, and they have already improved very much in appearance and demeanour, and made fair progress in their studies. It is hoped that they will not only afford an example of the advantages of education which will find imitators of their own class, but also be anxious to diffuse its benefits among those who are beneath them in social standing.

Punjab.

In the Punjab, a Government College at Delhi, and an aided Mission College at Lahore, were established during the year; the number of the town schools rose from 60 to 70, while that of the village schools decreased, in consequence of some being merged into the higher class, and the abolition of others in which the attendance had fallen very low. The number of female schools, supported

entirely by Government or local funds, increased from 204 to 272; and 411 new female schools were established by private contributions, aided by the State. In all, the number of educational institutions rose from 2,428 to 2,628, and the average number of scholars from 65,386 to 76,213, of whom 15,266 were girls. The amount collected as school fees from non-agriculturists, and that contributed from private or local sources for educational objects in aided institutions, increased very largely, showing the extent to which the people are learning to appreciate education.

Both at Lahore and Delhi, societies for debating and essay writing were established among the students of the colleges; and at the latter they were encouraged to peruse English newspapers, with the view of accustoming them to a less stilted phraseology than is too frequently adopted by educated natives, and athletic sports were organised with success. A magazine was started, for the purpose of assisting native scholars in preparing for the University examination, and diffusing intelligence upon educational subjects; while encouragement was given to Oriental learning, by the appointment of an Arabic professor at each college.

The attendance in the district schools increased from 3,244 to 5,281, owing to the extension of branch schools, which are frequently only those indigenous to the country, the teachers in which have been induced to adopt the scheme of studies prescribed for Government schools; they are ordinarily placed under the supervision and patronage of native gentlemen, and thus the indigenous schools are made to act as feeders to the superior Government institutions, and the interest of influential natives is enlisted in the cause of education.

The remarkable increase in the number of girls' schools has already been mentioned, but many of them are rather of a tentative than a fixed character, and it may be doubted whether the instruction is very thorough. Whilst, however, endeavours are being made to rouse the people from the apathy with which they regard the question of female education, care is taken, as far as possible, to avoid undue urgency in a matter which may create dissatisfaction and alarm if forced forward injudiciously.

Of private institutions under Government inspection, there were two colleges, one of which, started at Delhi by the Society for the Propagation of the Gospel, has been absorbed into that belonging to the Government; 70 schools, 17 being of the higher class (corresponding to the Government district schools), in which the progress made is reported to be very satisfactory, and three female normal schools, which will, it is hoped, in time, become the means of supplying a class of qualified teachers; two of the latter were established through the liberality of the Rajah of Kuppoorthulla, and are under the management of Native Committees.

The amount expended on grants in aid was 10,254 *l.*, or 1,028 *l.* in excess of that so spent in the previous year.

At a meeting held at Lahore by Sir Robert Montgomery, rewards were distributed to 60 native gentlemen who had distinguished themselves in promoting female education, and on other occasions prizes were given in public to the scholars. Favourable reports are made of the active interest evinced by some of the local Committees of Instruction, established to enlist the influence of the leading Native inhabitants of towns in promoting education.

The desire of the people to acquire the English language continues to develope itself, and the increase in the number of students of English is as marked in private aided schools of the higher grade as in the Government schools, the reports showing the total number of those studying it to have risen from 5,834 in 1862-63 to 8,359 in 1863-64, and 11,269 in 1864-65. The movement has even extended to female schools, where 264 girls are so employed. Instructions have, however, been given to take care that vernacular studies are not interfered with, as, while the desire to learn English is indicative of a growing freedom from prejudice, and a tacit expression of confidence in British rule, it is to some extent of a feverish character, and stimulated by hopes of obtaining high appointments in the public service.

The total income of all classes of educational institutions in the Punjab was, in 1864-65, 78,898 *l.*, of which more than half was contributed by the Imperial revenues, and nearly three-fourths of the remainder was drawn from the Educational Cess Fund, levied from the peasantry in the form of a per-centage on the land tax. The remaining sources of income, though steadily increasing, are comparatively small.

In the Lahore Medical School 15 students passed the examination for Native doctor, and are now in Government employment; and the number of candidates for admission shows that the study of medicine is becoming popular amongst the natives of the Punjab. The cost of the college during the year was 5,603 *l.*

Central Provinces.

In the Central Provinces the number of district schools remained the same, and that of the pupils very slightly increased; but the daily attendance considerably improved. There are four normal schools, through which 113 certificated schoolmasters passed during the year.

The aided schools consist of two classes; first, those established by European agency, assisted by a grant from the State proportionate to the funds derived from other sources, of which class there are nine, containing 1,100 pupils, the most successful being the two belonging to the Church Missionary Society, at Jubbulpore, and that of the Free Church Mission, at Nagpore; and, secondly, indigenous schools, established and supported by natives of the country, aided by donations from the Government in proportion to the number and proficiency of their pupils, to 32 of which class capitation grants were made during the year.

The town schools have been reduced from 102 to 93, but the number of pupils has increased from 7,078 to 7,356; and the average cost of each boy, exclusive of extraordinary charges, was 9 *s.* 6 *d.* per annum. The standard of attainments is rising, and the upper classes in some cases are beginning to learn English. These schools are attended by the children of shopkeepers, petty traders, and the better class of artisans; and, in some towns, night schools for adults are held, and are fairly attended.

The village schools have risen from 407 to 486, and the number of boys from 12,089 to 13,588, with an average cost of 5 *s.* a year. The majority belong to the agricultural classes. many being the sons of landholders or tenants of various degrees.

Female education made considerable progress in 1864-65, the number of girls' schools having risen from 47 to 65, and that of the pupils from 804 to 1,294. In some of the large towns, native ladies and gentlemen have either founded girls' schools, or exerted themselves to promote the success of those already founded; the girls come from all castes and professions, but the majority are of the higher castes.

There are 460 indigenous schools, either attached to temples and mosques, or kept by masters who earn a living by the work. The number of pupils in 1864-65 was 6,227, as compared with 4,875 in 1863-64. All these schools are more or less inspected, and 82 submitted to the formal examination of the Government Educational officers. Seven schools, attended by 263 pupils, were maintained by some of the Chutteesghur chiefs, on their estates.

Comparing all the educational institutions in the Central Provinces in 1864-65 with those in the preceding year, it appears that the number of schools increased from 993 to 1,133, and that of the pupils from 27,953 to 32,926, of whom 1,235 are studying English, and this is exclusive of 20 schools in the recently transferred district of Nimar, with an aggregate attendance of 973 pupils. There is now one school for every 90 miles of area, and one pupil to every 250 souls of the whole population. The total expenditure during the year was 13,510 *l.* from Imperial sources, and 14,644 *l.* from local funds and subscriptions. Advantage was taken of the revision of the land tax to raise the educational cess paid by landowners from one to two per cent. on the Government demand, by which means the funds disposable for the improvement of village schools will be doubled.

Hyderabad assigned districts.

In the Hyderabad assigned districts, two English and 26 Mahratta schools were in operation during the year, and two other English schools were sanctioned. The number of scholars was 1,360, and their progress satisfactory. Some of the Mahratta masters have been able to teach the rudiments of English. The whole expenditure on account of education amounted to 2,282 *l.*

British Burmah.

There are in British Burmah three Anglo-vernacular district schools, which are Government institutions, at Moulmein, Akyab, and Kyouk Phyoo, with 399 scholars. The normal and middle-class schools, established by various missionary societies, are 22 in number, and contain 1,834 pupils; they are situated in the towns

towns of Moulmein, Rangoon, Henzada, Toungoo, and Bassein, and are all aided by the Government, and reported to be doing well. There are 10 girls' schools, of which the most prominent is the Karen Female Institute at Toungoo, for educating Karen mountaineers; the others are at Rangoon and Moulmein, and have also been successful; the number of scholars is 435. The primary or village schools, established by missionary societies, and aided by grants from the Government, are 170, with 2,482 pupils; the teaching is elementary, but it is thought that they must gradually induce the agricultural population to seek for a sound education. There are also two special schools, with 91 scholars; these are, a theological seminary at Rangoon for Karen young men, and an Anglo-vernacular industrial school at Bassein, in which occupations and handicrafts are taught. Measures have also been taken for beginning education among the agricultural population, by means of suitable elementary books in the Burmese language, to be taught in the Buddhist monasteries. The appointment of a Director of Public Instruction in British Burmah has been very recently sanctioned as an experimental measure for two years.

Straits settlements.

The leading school at Singapore is the Raffles' Institution, containing 301 boys and 62 girls; and there are nine others, aided by the Government, in which 667 pupils of both sexes are taught. Besides these, there are several useful establishments not connected with the State, and a very promising school has been established by the Tumongong of Johore in his own territories.

Prince of Wales Island has four schools, with 653 scholars; and at Malacca there are 12 schools, in which 821 pupils are educated.

Madras.

In Madras the number of schools increased from 875 to 983, and that of the scholars from 34,709 to 39,100. Of these schools 110 are under the immediate direction of the Government, 75 were supported by a rate, 501 by grants in aid, and 297 were under simple inspection. The girls' schools were 74 in number, and contained 3,963 pupils, of whom 766 were Hindoos and 17 Mahomedan. The net expenditure was 66,836 *l.*

The Presidency College was doing well, and most of the schools were favourably reported on, except those in the northern circars, with regard to which it is hoped that a gradual improvement will take place, as a normal school for training masters has been established at Vizagapatam, and those masters who were inefficient have been replaced by good men. From the five Government normal schools, 58 students were appointed to masterships during the year.

The extension of the system of improving the indigenous village schools caused an increase of the number of schools in connection with the Government, from 754 to 873. The reports on the aided schools were very favourable, and many were established, or brought under inspection, during the year.

The pupils in the Tinnevelly Mission schools were 7,593, in place of 7,677; but the decrease only occurred in those under simple inspection, and the number in those receiving grants increased.

The revised code of rules for regulating grants in aid was brought into operation towards the end of the year, and appeared to be working satisfactorily.

Bombay.

The Imperial budget grant for education in the Bombay Presidency in 1864-65 amounted to 86,848 *l.*, and nearly 26,000 *l.* was assigned to the same object from local funds. The fees amounted to 10,662 *l.*, and the municipal assignments, popular subscriptions, and donations of individuals, gave an additional sum of about 57,000 *l.*

The number of schools rose from 802 to 952, and there were 65,802 scholars in 1864-65 instead of 52,882 in 1863-64; but the increased amount of the fee collections, from 8,308 *l.* to 10,662 *l.*, is a still more satisfactory proof of the value which the people attach to State education.

The University matriculation examination of November 1863 passed 22 candidates from the various schools, and on the next occasion the number rose to 77. The inspector of education is, however, doubtful whether the extraordinary improvement has really taken place which the mere numbers betoken.

Five natives of India have, by the generosity of Mr. Rustomjee Jamsetjee Jejeebhoy, been enabled to proceed to England, and provided with the means of residing there long enough to qualify themselves for practice as barristers in their own country.

The excited commercial state of Bombay had an unfavourable effect on the staff

staff of masters at the Central School, which was constantly deranged by resignations. In spite of this, however, the performances of the scholars at the University were unusually successful. The experiment of forming a commercial class in the school seems to have failed.

The head master of the high school at Dhoolia speaks of his success in establishing athletic exercises and English sports, and also a vocal music class, which at first had to struggle against native prejudices, but was afterwards seen to improve the English accent of the boys.

Vernacular instruction made little progress in the Northern Division; but very liberal assignments were granted from local funds, and better results may be expected in the ensuing year. In the districts under the political agents in Guzerat there was even a decline of 628 pupils, said to be caused by the charge of a schooling fee, a step which at first excites vehement dissatisfaction among the natives, whose tradition is that all education should be given gratis; but they become reconciled in time to the innovation, and are forced to admit that the fee is an equitable and not an onerous charge, and that the school where it is exacted is superior in discipline and general efficiency to the old free school.

About 47,000 Mahrattee and 100,000 Guzeratee books were printed, and the sale of 11,000 Canarese books shows that that dialect is assuming importance, while the number of Sanscrit books was over 3,000.

VI.—Emigration.

In the year 1839 all persons were prohibited from entering into contracts with natives of India for labour to be performed in any British or foreign possession beyond the territories of the East India Company; but, in consequence of the demand for labour in some of the Colonies, Acts have from time to time been passed, permitting emigration under certain regulations, to both English and French settlements, a return passage to India being provided on the expiration of the contract.

The whole tendency of the Indian legislation on the subject has been to protect the emigrants from ill-usage or fraud. In 1852 a stringent Act was passed to guard against crimping; in 1856 power was taken for the Governor General in Council to suspend emigration to any colony where there was reason to believe that the labourers were not duly cared for; and, under Act XIII. of 1864 a new code of rules was framed regarding their maintenance and management, a protector was appointed at each of the three Presidency towns, and other provisions were made to ensure adherence to the orders for the accommodation and treatment of the emigrants. The result of this Act has been beneficial, disputes between the agents of the different colonies being entirely suppressed, and the coolies being more thoroughly secured than before in the enjoyment of that free choice as to their place of destination which it was always intended that they should possess.

Many of the emigrants return to India with sums of money, which, to them, constitute no inconsiderable fortune. In the year 1864-65 about 2,880 brought back, from Mauritius and Demerara, savings to the average amount of 20 *l.* and 31 *l.* 15 *s.* respectively.

Bengal. The total number of labourers despatched from Bengal to the different Colonies, British and foreign, during the year was 13,485, or more than double that sent in 1863. One ship with upwards of 300 emigrants was lost in the cyclone, and one was wrecked off Mauritius, with the loss of about 20 persons.

Madras. The emigration from Madras fell off during the year, a circumstance which is due to the high rate of wages prevailing in the country, and the demand for labourers in Ceylon and in the plantations of Wynaad, Travancore, and Cochin. Out of 4,773 emigrants embarked, only one adult and one infant are reported to have died; and the Protector bore testimony to the attention shown by the agents to the well-being of those under their charge.

Bombay. In consequence of the excessive number of deaths which occurred in connexion with the emigration from Bombay to Mauritius in the year 1864, the Secretary of State for the Colonies suspended operations, and an inquiry was instituted into the causes which led to so high a rate of mortality. The investigations showed that the depôt was in a very bad situation, and very limited in accommodation,

and that the diet was insufficient, owing to the dearness of provisions; but the main cause of the sickness was the general prevalence of fever among the lower part of the population, while the withdrawal of the more healthy recruits under the temptation of the high price of labour at home tended to increase the relative death-rate among the emigrants. Strict injunctions have been given for having proper accommodation supplied, and the rules for the protection of the recruits carried out, in the event of emigration operations being resumed at Bombay.

VII.—Agriculture.

1. Agricultural Exhibitions.

In eight of the 10 divisions of Bengal, agricultural exhibitions were held during the year; they were all very successful and popular, and were carried out almost entirely by the people themselves, without any cost to the Government, while their true object of stimulating agricultural and other domestic pursuits appears to have been fully appreciated. In three instances the shows were opened by the Lieutenant Governor, who took the opportunity of explaining the object of the exhibitions, and urging the necessity of supplementing them with agricultural associations, whereby the knowledge gained might be put to a practical purpose.

An agricultural show was held at Agra, for the exhibition of cattle and poultry, cereals, fibres, cotton, farm produce, implements, and machinery, which attracted much attention, and was visited by a number of the native chiefs and gentlemen of the neighbouring districts.

A similar exhibition was held at Lucknow, and its object was properly appreciated by the people, the talookdars and other native gentlemen giving their support both in money and contributions. Those sent from other provinces were valuable and interesting, and numerous costly articles were exhibited by firms in Calcutta. It was gratifying to find that several of the prizes for improved implements were awarded to local exhibitors, and that one of the greatest attractions was the shed for the machinery, all the most valuable specimens of which were purchased by native gentlemen of the province.

The Agri-horticultural Society of the Central Provinces increased its numbers to 133, of whom 26 were natives. It distributed seeds and plants of every description, and both the quantity and quality of the vegetables sold in the bazaars have very much improved in consequence.

A society of the same kind was established in Burmah in 1864, to encourage the introduction of new products, and improve the native method of culture by means of better implements, and to draw the attention of the people to the breeding of cattle, and to their preservation from disease. An exhibition was held in February 1865.

In the Madras Presidency agricultural exhibitions were held with success at Addanki, Nellore, and in the Bellary district; and the attention of the collectors throughout the presidency has been called to the desirability of encouraging such shows. A steam plough, and a large number of agricultural implements were obtained from England, to induce the ryots to make improvements in the system of cultivation, and several applications were received for ordinary English ploughs. A model farm was established in the vicinity of Madras, for the trial of English implements and processes.

2. Tea.

Considerable difficulty was experienced in obtaining information as to the progress of tea cultivation in Assam, owing to the reticence of the planters. According to the most accurate returns which could be procured, the extent of land under cultivation increased by 12,838 acres, and the out-turn of tea by 188,217 lbs. The number of proprietors was 366, of whom 149 were natives, but several of the latter were merely owners of grants, with nominal clearances on them. The estimated produce in 1865, if realised, will give, at the price obtained in England, receipts to the value of 300,000*l*. The area taken up for tea planting in Assam is 516,475 acres, of which about a twelfth has been brought under cultivation. There seems ground for apprehension that, unless great activity is shown in importing labourers, some of the lands already cleared will run again into jungle, as the available number of workmen in the province does not give one person for each acre that is cultivated. There is, however, no indication of a decrease in the popularity of tea planting; and, though not perhaps as profitable as it was to the first owners who prepared the estates, and sold them at an

an enormous advance on their outlay, it promises to afford a safe and reasonable profit to all those who have not paid an excessive price for their gardens.

In Sylhet there was a very slight increase in the area cultivated, but the out-turn of tea exceeded that of the previous year by nearly 25,000 lbs. The soil of Chota Nagpore is considered to be as well suited for tea as that of Assam, but the climate is rather against a favourable development of the plant, though the results already obtained are sufficient to warrant a fair hope of success. The cultivation of coffee was also commenced in that division. The quality of the tea raised by the Ramghur Company in the Hazareebaugh district is pronounced to be excellent.

The number of labourers embarked for the tea plantations in Assam, Cachar, and Sylhet, was 28,282. The Act which was passed by the Bengal Council to regulate their contracts has been mentioned in another part of this report. Great care and consideration are now shown to the coolies by contractors; and, from the few complaints which have been received, it is believed that they are well treated by the recruiters also.

The yield of tea at the Government plantations in the North Western Provinces was 54,527 lbs., much of which went to the Umritsur market, or was exported to Affghanistan and Cashmere.

The cultivation of tea has been commenced in Oude by some European gentlemen, who have purchased waste lands, and laid out large sums of money in their reclamation.

There is hardly any available waste land suitable for tea in the Murree hills, and the only mode by which its cultivation in that part of the Punjab can be secured is by inducing the peasantry to undertake it, for which purpose many thousands of plants were distributed from the Government plantations to the adjacent villages. The cultivation in the Kangra Valley being now placed on a sound basis, the Government has determined to withdraw from the undertaking, and the plantations at Holta will be sold by auction. Upwards of 70 tons of tea seeds, and 1,769,033 seedlings were distributed gratis to planters during the year.

In the Madras hills seven acres of ground have been planted with the Chinese and Assam varieties of tea, with the view of supplying seed to planters.

3. Cotton.

The cultivation of cotton in Bengal is insignificant, except in Assam, Chittagong, and Tipperah; and the recent high prices have had little effect in extending it. No general impulse appears to have been given to native weaving in the Lower Provinces; and the decreased demand for cotton goods was caused by the rise in price of all necessaries of life, and by the fact that English piece goods are not well suited to the use of the poorer classes, who find it more economical to wear native cloths, which can be produced at a much lower rate in India than the cheapest manufactures in England, although in the finer kinds the latter may at present defy competition; what the natives require is an article of which the cost of manufacture bears a very low ratio to that of the raw material.

The high prices led to the sowing of no less than 1,730,634 acres with cotton in the North Western Provinces: but, owing to a deficiency of rain, the out-turn of cleared cotton was only about 165,000 maunds. The prices of other agricultural staples were not materially affected by the extension of the cotton cultivation. The native manufacture was generally depressed, and the trade in European fabrics became brisker.

In Oude a large increase took place in the cultivation, though in some districts the crop suffered much from the drought. The experiments made with American cotton established the fact that it can be grown; but it is neither so certain nor so remunerative as many other crops.

The cotton was principally used for twine consumption, the producers themselves preparing the thread, which was made into coarse cloth by village weavers. With a fall in the price, the demand for English cloth may be expected to increase, for it is largely used by the middle and upper classes, and for some time all but the richest have restricted themselves to very scanty supplies, and they would gladly make purchases on moderate terms.

The amount of land under cotton cultivation in the Punjab increased from 467,513 acres, in 1860–61, to 891,082 in 1864–65, and the price rose to 10½*d.* a pound; but, subsequently, a sudden fall to less than a third of the previous value occurred, owing to the prospects of the American war, and to the bad name acquired by

the Punjab cotton for adulteration. Trade was stopped, and large quantities of cotton and grain accumulated at the landing-place near Mooltan and elsewhere. Fifty bales of American cotton were produced in Ferozepore, but the cost is at present too high to be remunerative. Improved gins were obtained from Bombay, and some artificers were instructed in their use and mechanism. At Delhi 13 screw presses were in operation during the year; and at all the large marts on the Grand Trunk Road between Delhi and Lahore, one or more of such presses were established by private enterprise; but operations were brought to a close summarily by the cotton crisis.

The area sown with this crop in the Central Provinces increased during the year from 488,436 to 689,598 acres. Dr. Forbes, the Bombay Cotton Commissioner, visited the Wurdah Valley in company with the Chief Commissioner of the Central Provinces; and his advice as to the best manner of picking and packing the staple for export was widely circulated amongst the people. Renewed experiments are being conducted with a view to the introduction of American cotton, and eight fields have been sown with acclimatised New Orleans seed, supplied from the Dharwar farms, and improved machinery for ginning and pressing has been imported into the districts.

The experiments made to ascertain whether the American seed will flourish in Berar, were to a certain degree successful, and they will now be carried out on a larger scale. The price of cotton fell from 2 to 6½ lbs. for the rupee, and a considerable reduction of the cultivation may be expected in consequence.

In order to promote the cultivation and improve the quality of the cotton in that part of India, both indigenous and exotic, instructions have been recently given for the appointment of a Commissioner for Berar and Central India, whose duties are to consist, like those of Dr. Forbes in the Presidency of Bombay, in collecting and diffusing information as to the best modes of cultivating, cleaning, and packing the cotton, and in arranging for the supply of good seed and machinery to the ryots.

Owing to the high prices, the area of cotton cultivation in British Burmah increased largely, from 8,451 to 18,012 acres; but this cannot be maintained when the prices are lower than those which ruled in 1864, for the crop is ordinarily far less remunerative than rice. The quality was not improved, but a superior kind was grown in Amherst, which fetched in the Calcutta market 1 *s.* 4 *d.* a pound.

The fall in the price led to a diminution of the area cultivated in Madras, from 1,824,763 to 1,742,078 acres. The attempts to introduce exotic cotton were not very encouraging.

For many years experiments were tried in the Bombay Presidency, at considerable expense to the Government, with the view of improving the growth of Indian cotton, and introducing the cultivation of exotic species; foreign seed was procured, model farms established under the superintendence of American planters, and machines for cleaning and packing the wool provided. The result was to prove that, while the soil in the north is unfavourable to the growth of the American plant, it can be successfully cultivated in the southern districts of Bombay, the chief obstacle to its extension being the want of suitable cleaning machinery; improvements in this respect were, however, effected by Dr. Forbes, the superintendent of the Dharwar factory, and, from the various causes which of late years have stimulated the cultivation of American cotton, the area over which it is sown in that district has very largely increased. It has been estimated that about 600,000 acres may before long be covered with this crop in Bombay and the adjoining provinces, and there will still remain some 630,000 acres adapted to the indigenous species, for home consumption.

A practical gardener was recently sent to India, to assist in improving the growth of cotton, by careful selection of seed, and other measures.

In 1863 the Government of Bombay passed an Act (No. IX.) for the suppression of robbery and adulteration of cotton, and a water police was established to prevent pilfering on its passage from the shipping ports to Bombay, particularly in the small ports and tidal rivers of the petty native states on the coast: the new law proved successful, and was not found oppressive.

4. INDIGO

In the year under review, the Lieutenant Governor of Bengal pointed out to the Landholders' and Commercial Association of Bengal, that the reduced price paid for indigo, of a rupee for six instead of four bundles, was unremunerative to

to the growers, and that it would be found in the long run commercially unprofitable to employ pressure, legal or otherwise, to make men grow crops which they did not wish to cultivate, and sell them at prices fixed in advance by the purchasers, without any reference to market rates. The correctness of this principle was admitted by the Association, who, however, contended that the price then paid was not unprofitable to the grower, as indigo really took the place of clover in the English four-course system of rotation of crops, and, if indigo was not sown, the land would have to lie fallow or would rapidly deteriorate; and they suggested that the officers of the Government should explain this view of the matter to the cultivators. This request was not complied with, as, if the ryots rejected the teaching of the planters, who had a practical acquaintance with agriculture, they would assuredly not receive the same advice from the Government officers, with no pretensions to such knowledge. A plan adopted by one planter, Mr. A. Hills, was to offer to every ryot on his estate, when entering into a contract for the cultivation of indigo, a deed specifying that, in return, he would be charged only about 13*d.* instead of 2*s.* for each beegah of land, the full rent being demanded if he failed in his contract. This deed gave the ryot a tangible return for his consent to grow indigo; but it would be better, for the purpose of obviating all misunderstanding, if the production of indigo were entirely separated from all question of rent, and treated, like other branches of trade, on its own merits.

Indigo is still grown in Oude, but not to any considerable extent. In the Dera Ghazee Khan district of the Punjab, it is being largely cultivated, with every prospect of profit to the grower and manufacturer.

5. Other Crops.

The cultivation of the sugar-cane in Oude is very profitable, and is increasing rapidly. Wheat is the great spring crop of this province, and the out-turn in 1864–65 was, in spite of an unfavourable season, about 20 bushels per acre of fair soil. The cultivation of opium is highly remunerative, and is very popular with all classes; but owing to the severe drought, the yield fell from 11,261 maunds in 1863–4, to 8,102 in 1864–5. One gentleman has planted mulberries very extensively, preparatory to the cultivation of silk.

Flax was cultivated on a considerable scale in the North Western Provinces, and about 537 acres were sown by the Belfast Flax Company in the Punjab.

Foreign tobacco was introduced into British Burmah with success, and sesamum grows very well in most parts of the province; but the constant demand for rice checks the development of any other product.

In several districts of Singapore, cocoa-nut and fruit plantations are being formed, and 205 acres were taken up for this purpose during the year. In Province Wellesley an extensive tract was brought under cultivation, by means of the recently constructed canals; but, the drought seriously affected the sugar estates, and both the island of Penang and the province suffered materially. The rice crop failed at Malacca, and the people suffered much distress; but some relief was afforded by giving them employment in improving the roads and constructing new paths in the neighbourhood of their homes.

Endeavours were made to introduce maize and Carolina rice into Madras, but without much success.

6. Arboriculture.

The chief measures connected with the cultivation of trees have been already described under the heading of Forest Revenue. To encourage arboriculture, the local officers were directed to make known to landholders and others, that seeds of trees and shrubs would be distributed from the Calcutta Botanic Gardens, to persons desirous of planting them, and numerous applications have been made and complied with.

Nurseries were formed in the Madras Presidency, for the growth of trees valuable for timber, firewood, or fruit.

7. Chinchona.

An attempt to introduce into India the quinine-yielding chinchona of South America was made by the Indian Government so long ago as 1852, and a few plants were conveyed alive to Darjeeling, but they died in the following winter.

The desirability of making another effort having been brought to the notice of the Secretary of State in Council in 1859, Mr. Clements Markham, of the India Office, who had a practical knowledge of the forests in Peru, and on the frontiers of Bolivia, offered his services for the purpose; and he was accordingly deputed to South America, in the autumn of that year, to obtain plants and seeds of the various useful species. He was assisted in the enterprise by Mr. Spruce,

a botanist of some eminence, who was at this time in Ecuador, by Mr. Pritchett, and by two practical gardeners named Cross and Weir.

The difficulties in the way of the undertaking were very great, owing to the unhealthiness of the climate, the scarcity of the trees resulting from the reckless manner in which the forests had been destroyed in the preceding ten years, and the extreme jealousy of the Native Governments and people in preserving their monopoly of the bark trade.

Mr. Markham, however, proceeded in person to the forests of Caravaya, and obtained a large number of plants of two of the most useful species, which he brought to England in the summer of 1860, and thence conveyed to India, where, by his advice and under the care of Mr. M'Ivor, the superintendent of the Government gardens at Ootacamund, they were planted on the slopes of the Neilgherries. The intense heat of the Red Sea had so seriously affected the first batch of chinchonas that they all died; but the chief part of the collections of plants and seeds obtained by the gentlemen who had, in accordance with Mr. Markham's instructions, entered the forests where the other valuable species were found, met with a happier fate. Some valuable plants were presented to the Government of India by the Dutch Government in Java; Mr. Markham subsequently obtained a further supply of the seeds from Bolivia, which have come up very satisfactorily; and the whole experiment has proved most successful.

At the end of the year 1864–65, there were growing on the Neilgherry Hills alone, more than half-a-million plants; the state of the plantations was very favourably reported on by Mr. Markham, who went to India at the end of 1865 to examine them; and, by the last accounts received from Madras, there were not less than 1,086,079 young chinchona trees in a flourishing condition. Other plantations have been formed, by the Government or by private enterprise, on the Wynaad plateau and the hills of Coorg and Travancore, on the Pulney range, at Darjeeling, in Assam, in the Kangra Valley, and on the hills of Mahabuleshwar.

Independently of the great saving that will accrue from the possession of the chinchona to the Indian Government, which has been estimated at not less than 50,000*l.* a year for the supply of quinine to the troops alone, the result of the experiment is very satisfactory, in having opened a vast field for the cultivation of this valuable plant, the best species of which appeared likely ere long to become almost extinct in South America, and in having demonstrated that the medicinal qualities of the bark are capable of considerable improvement under proper culture; whilst it is impossible to calculate the value of the benefit bestowed upon the general population, by placing within their reach the fever-expelling preparations of the plant, which, from their high price, have hitherto been inaccessible to any but the wealthy classes.

VIII. Sanitary Measures.

Bengal.

In the year 1864, Calcutta was visited by small-pox in an epidemic form, which for some time raged with great violence. A separate hospital was established at Chitpore, for the reception of small-pox patients only, and in six months 690 persons were received into it, of whom 56 Europeans and 208 Natives died. Besides the hospital, a private house was given up by its owner for the reception of European ladies and gentlemen attacked with the disease, and 216 patients were there treated. An additional staff of vaccinators was employed in Calcutta, and an Act was passed empowering the local governments to prohibit inoculation in any town.

The epidemic fever which for several years has ravaged certain portions of the Burdwan, Nuddea, and Rajshahye divisions, has been pronounced by the committee appointed to investigate the matter, to arise mainly from miasma; and steps are being taken for draining the district and filling up the pools in the villages. In some places cordial co-operation has been received from the natives, who have at last been convinced of the sanitary value of these measures.

Cholera, following the devastation caused by the cyclone, was very fatal in Midnapore, Howrah, and the 24 Pergunnahs; medicines were at once sent down the river, and as many native doctors as could be obtained were distributed through the affected districts in every direction.

In

In the North Western Provinces, a new hospital for the reception of destitute Europeans and Eurasians was erected by Babpo Gooroo Doss Mitter. The support derived by the dispensaries from local funds and native liberality shows a satisfactory increase. North Western Provinces.

Small-pox raged with much virulence over a great part of the Upper Provinces; and Kumaon and Gurhwal, where the bulk of the population is already protected by vaccination, were the only two districts unaffected by the disease.

The Punjab was also visited by the same scourge, which in the cities of Lahore, Umritsur, and Delhi, carried off 4,733 persons, but the mortality was chiefly confined to children. Some idea of the prevalence of the disease may be gathered from the fact that out of 3,076 prisoners, only 78 had not had it. An organised system of vaccination was introduced during the year, but some opposition was experienced in Umritsur and Lahore. Punjab.

The peculiar disease known as the Delhi sore prevailed to a serious extent among the troops stationed at that city. It is remarkable that it is comparatively rare among both Natives and Europeans other than troops, a census taken in October having shown the proportion of those suffering under it to be little more than one in 1,000 of the inhabitants, and 202 per 1,000 of the soldiers, European and native. The mortality from all causes in the city of Delhi was nearly 5 per cent.

The increased attendance at the dispensaries throughout the Punjab shows the growing confidence in them which the people feel; and the employment of native practitioners for the distribution of European medicines and treatment of the sick, under the control of English medical officers, was attended with some success.

Five branch dispensaries were added during the year to the number previously existing in the Central Provinces; and the inhabitants of the large towns generally evinced a desire to subscribe liberally towards the establishment of those institutions. The number of patients treated showed an increase of 33 per cent. over that in 1863, and 85 per cent. over 1862. The income from private subscriptions rose 35 per cent. Central Provinces.

A systematic scheme of vaccination was introduced in 1864.

Epidemic cholera attacked every district in a more or less severe form. As, in the various outbreaks which occurred in the towns lying at the foot of the Sautpoora range, it was found to have been conveyed thither by pilgrims who had been visiting the shrine of Mahadeo on the Puchmurree hills, the holding of this fair at the spring season, when cholera usually appears, has, in the interest of the public safety, been prohibited.

Low fever was very prevalent in Chutteesghur, and it was believed to arise from the want of good water. Accordingly, wells were dug at halting-places along the roads; and grants of land have been offered, free from the payment of revenue for 30 years, to persons who sink wells for drinking purposes.

Moulmein was visited by both cholera and small-pox, the latter of which also prevailed at Myanoung. With these exceptions, the state of the public health was generally good in British Burmah. British Burmah.

A serious outbreak of cholera occurred at Malacca, owing to the excessive drought; but the native troops and convicts within the lines were entirely free from the malady. It was very fatal also in Province Wellesley, both in the British and adjoining states. Straits Settlements.

The first portion of the year was generally healthy in the Madras Presidency; but subsequently cholera, brought in a great measure by the pilgrims at the Humpy festival and at Juggernaut, spread throughout the ceded districts and the northern circars. A new hospital was opened at Negapatam, and a dispensary at South-east Wynaad, both of them being supported by the local residents. Madras.

Bombay has benefited largely by the generosity of several of the wealthy native gentlemen. Much progress was made during the year towards the completion of the eye hospital endowed by Mr. Cowasjee Jehanger, and the ward for lepers, to which Mr. Rustomjee Jejeebhoy gave a sum of 8,000*l.*, was commenced, and about two-thirds of it finished. The wants of the native community Bombay.

munity having for some time exceeded the accommodation provided by the Jamsetjee Jejeebhoy Hospital, a donation of 5,000 *l.* for increasing its accommodation was made by Sir Jamsetjee Jejeebhoy; and it was also proposed by the Hon. Rustomjee Jamsetjee Jejeebhoy that a Native General Hospital should be erected in a suitable position, for the expense of building which he himself offered 25,000 *l.* Considerable progress was made at Poona towards the completion of the David Sassoon Hospital, a handsome early English Gothic building, towards the erection of which 5,000 *l.* was contributed by the late Mr. David Sassoon, in addition to 10,000 *l.* for its endowment; and the Hutteesing and Premabhaie Hospital at Ahmedabad was enlarged. At many of the towns in the Mofussil, dispensaries were endowed by the municipality, or by the gifts of private individuals.

Cholera prevailed during the year in many of the collectorates; and in the jungle villages of Canara fever had not abated to any extent, though in the larger towns the health of the people was improved.

Before the commencement of the usual religious festival at Allundee in November 1864, arrangements were made for improving the sanitary condition of the locality; and, during the seven days that it lasted, the utmost attention was paid to the health and comfort of the pilgrims, and to the best means of dispensing medicines in case of an outbreak of cholera, and preventing the disease from being brought into the city or cantonment of Poona. The result was that not a single case of cholera occurred among the pilgrims assembled.

IX. Municipalities.

Bengal. Much attention was paid by the municipality of Calcutta to the conservancy of the city; the scavengering establishment was increased, and the offal, which was formerly used for filling up holes in the town, or else thrown into the river, is now removed three miles from the town, and there burnt in a kiln; the practice of throwing bodies into the river was stopped, and the pauper dead are buried at the expense of the municipality.

A registration of births and deaths was established during the year; and, though at first the people were very reluctant to register, the mortality returns have gradually become more reliable, and they show an annual proportion of 36·7 per 1,000 of the population. The returns of the number of births appear to be far from accurate.

An Act was passed through the Local Council to enable the municipality to direct the closing of all slaughter-houses in Calcutta, and the establishment of a public abattoir in the suburbs.

Oude. In more than one district of Oude the inhabitants of the towns are beginning to appreciate the advantages of conservancy, and have voluntarily taken upon themselves the charges necessary for this purpose, and for the maintenance of police to protect their property.

Punjab. There were municipal committees in 49 of the principal towns of the Punjab, and, with one or two exceptions, they worked well. In 28 instances they are elected by the people, and are generally the recognised representatives of the principal trades or castes. In every case, except that of Simla, the form of taxation chosen by the people is that of town duties.

Bombay. An Act (No. III. of 1865) was passed by the Bombay Government, providing for the management of the municipal affairs of Bombay, and for the conservancy and improvement of the city.

X. Ecclesiastical Establishment.

In Bengal four churches were consecrated during the year 1864-65; and a grant was made for the employment of a minister specially to attend to the Christian population in the northern districts of Calcutta. In the Punjab also, four new churches were completed and four others in progress, besides a Roman Catholic chapel at Delhi. The new church at Nagpore was enlarged and that at Raepore opened, while four others are being constructed in other parts of the

Central

Central Provinces. A church was erected by private subscription at Berhampore, in the Ganjam district. In Bombay the church at Poorundhur was nearly finished, and progress was made with those which are being built at Poona, Kirwee, and Belgaum.

XI. Native States.

1. Bhotan.

The long-continued incursions and depredations of the people of Bhotan on the adjoining British territory, as well as on that of Cooch Behar, extending over a period of 35 years, led to the despatch of a friendly mission to that state in the early part of 1864, with instructions to demand the surrender of their captives and restoration of the plundered property, and to require security for the future peace of the frontier. These overtures were, however, rejected; the envoy was insulted in open Durbar, and he was compelled to sign a document for the renunciation of the Bhotan Dooars, situated on the border of Assam, which were the property of Bhotan, but administered by British officers, a payment of 1,200 *l.* being made to that Government as the revenue of the tract. This led to the annual payment being withheld, and to the annexation of Ambaree Fallacotta, which had long been in the possession of the British Government. On the arrival of the cold season a military force was despatched to occupy the Dooars, including such positions in the hills as were necessary to defend the plain. The forts of Dalimkote, Buxa, Dewangiri, and other places, were captured by the British troops; but, the supply of water at the last mentioned post being cut off by the enemy, and the ammunition failing, it was evacuated, and in the retreat two guns were abandoned by the native soldiers in charge of them. An additional force, including some British troops, was at once despatched to Bhotan; Dewangiri was retaken and destroyed; and, after some further successful operations, the army returned to the plains. In the following October the troops were again advanced into the hills, and Dewangiri occupied, but shortly afterwards a treaty of peace was agreed to by the envoys who had been sent by the Deb Rajah for that purpose; an ample apology was made for the insults offered to Mr. Eden, and the treaty signed by him was surrendered as well as the two guns. The Bengal Dooars and the hill lands bordering on the Teesta were withdrawn from the state of Bhotan, as also were the revenues which it received on account of the Assam Dooars; but, as the chiefs of the country would thus have been deprived of their main income, a sum of 2,500 *l.*, rising gradually to 5,000 *l.*, will be paid to them annually, so long as they continue to behave well, it being considered that, the stronger the government in the neighbouring states, and the greater the prosperity of their subjects, the better will be the security for the permanent peace of our frontiers. The gross revenue of the territory annexed is now estimated at 15,000 *l.*

2. Cooch Behar.

It having been ascertained that traffic in slaves was very general in Cooch Behar, an endeavour has been made to extirpate the practice during the present Rajah's minority, and orders have been issued prohibiting the seizure, sale, or detention of any persons, male or female. The British coinage has been introduced into this state, as the old coinage was in an utterly debased condition; and a new settlement of the country has been authorised for 20 years.

3. Nawab Nazim of Moorshedabad

At the request of the Nawab Nazim of Moorshedabad, a British officer was deputed to accompany his three eldest sons to England, as it was considered that such a visit would afford them the best means of qualifying themselves for their future position in life. After a stay of about a twelvemonth in England they returned to India at the close of 1865.

4. Punjab.

With the exception of a few border raids, and a slight disturbance in the frontier tract of Yusufzai, the Punjab enjoyed uninterrupted tranquillity throughout the year. The greatest durbar ever seen in the province since the time of the Moguls was held at Lahore in October; when 13 feudatory chiefs with their retainers, and 584 of the principal gentry, assembled to do homage to the viceroy.

The Kohat Pass became insecure for travellers, owing to the dissensions of the Hassan Kheyl clan of Afreedees, to whom, as guardians of the pass, a payment of 570 *l.* per annum has, in accordance with the practice of former rulers, been made by the British Government since 1849; and, every effort to bring about a

reconciliation having failed, it was found necessary to declare the pass closed to our own subjects, and to withhold payment of the subsidy until the contending factions should adjust their feuds.

5. CASHMERE. The reduction of the customs duties effected by the Maharaja of Cashmere in the preceding year produced a considerable increase of trade with the adjacent districts of British territory.

6. JHEEND. In the native state of Jheend a rising took place among the Jât peasantry of Dádree, but the insurgents were promptly attacked by the young Rajah in person, and the revolt entirely put down.

7. BAHAWULPORE. The affairs of Bahawulpore were in a most unsatisfactory condition; the execution of his three uncles by the Nawab, and his harsh treatment of some of his other relatives, necessitated the interference of the British Government, whilst his conduct towards his subjects was reckless and oppressive, and calculated to endanger the peace of his territory. Two refugees who had taken shelter within the British frontier organised a serious attack on a village belonging to the Bahawulpore state, but were repulsed and again fled into our territory; their surrender to the Nawab was refused, but, as they had abused the asylum afforded them, and failed to furnish security, they were placed in confinement at Lahore. Very recently information has been received of the death of the Nawab, of the accession of his son, a child four years of age, and of the whole country having been thrown into a state of anarchy in consequence of his claim being disputed.

8. MAMDOTE. The death of the Nawab of Mamdote raised a question as to the succession to his estate. He received his title and sovereign powers from the British Government, in reward for his services during the second Sikh war; but he was deprived of them in 1856 in consequence of his grossly oppressive conduct, and the estate was managed by the district authorities of Ferozepore, in whose hands it has thriven. After due consideration, it was determined to maintain the fief, and to confer the title and revenues on the Nawab's brother, who had taken no part in the oppression exercised by the late Nawab and his sons; but the police and magisterial functions and the fiscal management of the estate were retained in the hands of the officers of the Punjab Government.

9. RAJPOOTANA. The political agency at Ulwur was abolished during the year, the Rajah being of full age to manage his own affairs.

A case of mutilation having occurred in the territory of Jhabbooa, with the cognizance of the chief, he was, in order to mark the abhorrence felt by the British Government at his barbarous conduct, deprived of the public honours to which his position entitled him. In consideration, however, of his general good conduct, these honours were subsequently restored.

The revenue of Meywar has considerably increased, and the conduct of the Maharana is very favourably spoken of; while scarcely less important in its bearing on the future welfare of the country is the aid which some of the influential men of the state are beginning to give in its administration.

10. DHAR. The principality of Dhar was confiscated by the Government of India on account of the rebellion of its mercenary troops in 1857, but was subsequently restored to the Rajah. As he was a minor, and there was no ministry to which the government could be entrusted with advantage, the administration was vested in a British officer until the Rajah might be capable of managing affairs for himself. In 1864, it was thought that the complete restoration of the sovereignty to the Rajah need no longer be delayed, and accordingly, in November, the British Agent was withdrawn, and the full authority made over to the Native prince.

11. THE NIZAM. The minister of the Nizam abolished the duty levied on the internal trade of his Highness's dominions, and revised the arrangements for collecting the duty on imports and exports from and to British territory. These measures were not carried through without opposition, but the minister promised compensation to those who suffered, and his word is trusted. He also effected a revision of the Courts of Justice in the city, and of the mode of district administration.

A slight disturbance occurred in Shorapore, during the absence in England of the officer appointed by the Nizam to administer the principality when it was made

made over to his Highness in 1861, after its confiscation; the malcontents were at once put down by the irregular force of the district, and their leaders arrested.

12. SIAM AND BURMAH.

Attacks by bandits coming from the Siamese Shan States upon British subjects in Amherst having become numerous, the Deputy Commissioner had a conference with the Yahaing Chief, and others near the border, the result of which was satisfactory.

One-half of the boundary between British Burmah and Siam was marked out during the year, and the upper course of the river Salween was surveyed, and found to be unnavigable, except at an enormous expense. The conduct of the Burmese and Siamese authorities in facilitating the survey was very friendly.

13. TRAVANCORE.

Considerable reforms were initiated during the year in the Judicial Courts of Travancore, the services of an able Principal Sudder Ameen were obtained from the British Government for the post of first judge, and a higher tone imparted to the courts, which are rapidly rising in the respect and confidence of the people. The police worked as well as could be expected in its present organization, and cases of smuggling were much reduced in number after the tobacco duty was lowered. The long contemplated interpostal arrangements between Travancore and British India were carried into effect.

Numerous applications for coffee lands in the Travancore hills having been received, rules were issued for their sale at an upset price of 2*s.* an acre, and a party was organised for surveying them.

The Rajah's school at Trevandrum continued to hold its high position, and there were signs of some of the more deeply rooted caste prejudices yielding to the influence of education.

The Public Works Department has considerably increased in efficiency, and some important works were pressed on with vigour, particularly the Victoria Canal, which has proved more difficult than was expected. Roads are being constructed to the coffee plantations, and across the ghauts into Madura.

The finances of the country are in a flourishing condition, and there was a considerable surplus in 1864-65, notwithstanding the large reduction in the duty on tobacco, and the increase of the salaries of the judges, and other servants of the Government, to whom also retiring pensions were granted.

14. COCHIN.

The Code of Civil Procedure of the Indian Government was introduced into the State of Cochin, and education received a stimulus by the reorganisation of the Rajah's school at the capital. Fresh lands continued to be taken up for coffee plantations. The Shoranoor bridge, to connect his Highness's territory with British India, and to carry a branch railway, made progress, and the canals and roads were improved between Cochin and the railway at Shoranoor, the continuance of which to the ports of Narakel and Cochin is under discussion. The finances of this state are flourishing, and it has followed the example of Travancore in many of its reforms.

15. KATTYWAR.

The chiefs of the province of Kattywar, following the example of the Jam of Nownuggur, abolished the levy of transit duties in their territories, a very important measure for the commerce of the country, as, owing to the minute subdivision of estates exercising separate jurisdiction, these duties were unusually harassing and numerous.

Efforts were made by several states to organise courts of civil and criminal justice; in Bhownuggur a complete elementary procedure and code of punishment was published and put in force, and other states, as a first step towards reform, separated their judicial business from the revenue management.

The growing desire of the chiefs to improve the means of communication in the province was evinced by 15 of them subscribing a sum of 145,000*l.* towards the construction of a railway, instead of an ordinary road, from Hurdwar to Ahmedabad.

The Thakoor of Bhownuggur constructed landing-places, with roads leading to them, which added considerably to the facilities of that port for loading and discharging cargo. A handsome tank for drinking-water and a good bridge have also been built near the city.

In the Gulf of Cutch, the Jam is engaged in making a first-class piece of road, two miles in length, from Behree to the creek where native ships lie, and he contemplates

templates the construction of a quay and embankment for landing and storing merchandise.

The Nawab of Joonaghur engaged the services of an English engineer for improving the port of Verawul, and during the year minute surveys of anchorage were executed, and arrangements made for the commencement of a sea wall and pier.

These works are, doubtless, mere specks on the surface of the great peninsula of Kattywar, but they are an earnest of the spirit of improvement which has been recently infused into the administration of the chiefs of the province.

The high prices, which contributed largely to the material prosperity of the landholders, pressed with unusual severity on the poorer classes, and enabled the lawless Wagheers to enlist a considerable body of discontented persons to assist them in their plundering expeditions. At the close of the year 1864, the strength of these bands of robbers was not less than 300 men, and their defiant attitude compelled the political agent to move out a detachment of cavalry and infantry, with two mountain howitzers, to hold them in check, and it was intended to pursue them into their haunts, and capture or destroy their leaders. As these continued depredations were consequent on the maladministration of the native officers, the Guicowar consented to an increase of his force in the Baroda territory, and it was determined to withdraw the Guicowar's troops from Kattywar, and replace them by a local force of 400 men, the cost of which, about 10,000 *l.* a year, would be borne by the chiefs whose territories would profit from its services.

Notwithstanding this local disturbance, peace and order were maintained throughout the rest of the province, and the tribute, both of the British Government and of the Guicowar, was collected with the utmost regularity; whilst the returns of crime showed that the security of life and property had increased with the growing prosperity of the population.

16. CUTCH. In Cutch, the sufferings of the poorer classes, arising from the high price of produce of all kinds, were aggravated by the failure of the monsoon in 1864, and by the scarcity of grain, resulting in some measure from the large area of land under cultivation for cotton. As a means of relief, the Government authorised the remission, for six months, of the export duty on grain from the ports of the western coast and Sind to Cutch, which proved a great blessing to the country. Notwithstanding the distress, however, the province was remarkably free from serious crime, and there was no instance of burglary or gang-robbery; but the suicides, the frequency of which has long been a remarkable feature of the crime returns, showed but a small decrease, the greater proportion being, as usual, among females. This is attributed to ill-treatment, owing to the inferior status which women occupy in all eastern countries, and the evil can only be mitigated by extended education, in which Cutch is much behind other parts of Western India. The schools at Bhooj and Mandavee maintained their efficiency, and the latter, which is highly popular, was liberally endowed by a Khoja merchant in the past year. A commencement was made in the work of improving the harbour at Mandavee.

17. REWA KANTA. The tranquillity of the Rewa Kanta was interrupted by a serious disturbance, arising from a boundary dispute, on the frontier between Loonawarra and Soanth, in which 22 men were killed and wounded; but order was speedily restored on the arrival of the political agent.

The mismanagement of the affairs of Deoghur Barreah, after the death of the late chief, rendered it necessary to resort to the extreme measure of placing in the hands of the political agent the management of the state during the minority of the present chief.

18. KOLHAPOOR. The Rajah of Kolhapoor, who was vested with the government of his principality in November 1863, continued to administer the affairs of the state in a most satisfactory manner. The population generally was orderly and contented, and the condition of the country was one of increasing prosperity. The warm personal interest taken by the Rajah in promoting education had the best effect on all classes; and the vernacular schools, which are under his direct management, were popular and flourishing.

The

The estates of all the chiefs of the Southern Mahratta country were visited during the year by the assistant political agent, who observed many proofs of the increasing attention given by them to the administration of their affairs. The revenue survey was successfully carried out in one district of Sanglee, where also an Anglo-vernacular school was established. The chief of Jamkhundee was employed in carrying out a project for supplying his principal town with water from a lake about a mile distant, and he spent a good deal of money in the purchase of a steam plough, and other European novelties, which produced a highly favourable impression throughout the country. 19. Southern Mahratta Country.

The tranquillity of the Sind frontier was undisturbed, except by two petty cattle-lifting raids, in both of which the marauders were cut up by detachments of the Sind horse. 20. Sind Frontier.

Shere Dil Khan, who was raised to the throne of Khelat on the deposition of Meer Khodadad Khan, was assassinated by a disloyal soldier in May 1864, and the former sovereign was restored by the voluntary act of the people. The friendly conduct of the chiefs during the period of excitement was a gratifying proof that they appreciated the goodwill of the British Government. 21. Khelat.

XII. Army.

The number of the European troops in India at the beginning of 1865, exclusive of commissioned officers, was 68,336, and the Native troops at the same date were 114,833. 1. Strength and Distribution.

Some diminution in the army was effected in the year 1864-65, by the conversion of three field batteries of the Madras Artillery into garrison batteries, the reduction of a battery at Bombay, and the disbandment of the Southern Mahratta Horse at that presidency, and of the East India regiment in Bengal, and the reduction of four regiments of the Madras Native Infantry. The body-guard of the Governor of Bombay, which was previously formed by a detachment from one of the Native Cavalry regiments, has been constituted as a separate corps.

The distribution of the British force in Bengal was carefully revised, with reference to considerations of a sanitary character, as well as to those of political and strategical importance, the endeavour of the Government being, as far as possible, to avoid breaking up regiments, while placing them in the most healthy situations. The strength of the Bengal force was fixed at 12 batteries of horse, 23 of field, and 16 of garrison artillery, 7 cavalry, and 33 infantry regiments. It was not found practicable to withdraw more than three of the latter from the plains; but several of the stations occupied are shown by experience to be healthy, and measures are being adopted for providing increased accommodation for convalescent soldiers on the hills.

At the beginning of the year 1864, the whole of the Native infantry regiments in Bengal and Bombay were placed on a new organisation, under which there are only seven combatant European officers with each corps, the troops and companies being commanded by native commissioned officers, as was previously the case in the irregular force; and, on the 1st of November 1865, the Madras army was assimilated in organisation to those of the other presidencies. In carrying this important measure into effect, the Local Government was directed to give the new regimental appointments, in all possible cases, to officers belonging to the cadre of the reorganised regiment, and to make every endeavour to prevent supersession and to meet the personal wishes of all concerned. 2. Reorganization of the Native Army.

The charges of the whole army rose from 14,546,410 *l.* in 1863-64 to 15,774,486 *l.* in 1864-65. Part of this increase was caused by the very high price of provisions, and the large demand for labour throughout the country, which rendered it necessary to give compensation to the native officers and soldiers, especially in Madras; good-conduct pay, moreover, was granted after shorter periods of service than hitherto, and the cost of these measures was estimated at not less than 110,000 *l.* a year. Additional pay was also given to the new Silladar Cavalry, in consequence of the high price of their horses' food; and the ration of the native soldier was improved by granting him a daily allowance of 3 lbs. of firewood. In the Madras army, an extra charge was incurred, on account of carriage and subsistence to the families of European troops. The 3. Cost.

rise of prices also rendered it necessary largely to increase the payment on account of the soldiers' children educated at the Bombay Government Military Asylum; while the enormous charge for dwellings in Bombay led to the sanction of an additional allowance for house-rent to the officers stationed at the presidency town. Various other measures will be mentioned below, which have contributed to swell the expense of the Military Establishments.

In 1864 it was determined that, as the altered circumstances of the country rendered it no longer necessary or desirable to maintain the distinction laid down in 1836, with reference to the additional allowance termed batta, between regiments within easy reach of supplies from Europe and those in the interior, the full batta rate should be extended to all the troops, whether stationed within 200 miles of the presidency town or further up the country. The increase to the expenditure arising from the adoption of this measure is estimated at upwards of 50,000 *l.* per annum.

The 19th Madras Native Infantry having suffered very severely from the effects of the cyclone which fell upon the coast of Masulipatam on the 1st of November 1864, relief was granted by the Government in the form of compensation for the loss of their huts and other property, and a sum of money was distributed among the native ranks of the corps and the heirs of those who perished in the storm.

The pension rules of the Native army were revised in 1864, and the whole force placed on one footing in this respect.

4. HEALTH.

In the year 1859 a Royal Commission was appointed to inquire into the measures which it might be expedient to take for maintaining and improving the health of all ranks of Her Majesty's army serving in India; and, in accordance with the recommendation of that body in 1863, a sanitary commission was appointed at each of the three presidencies, to assist in all matters relating to public health, the selection of new stations, the planning of new barracks and hospitals, the improvement of native towns, and the prevention of epidemic diseases.

The rate of mortality in India was stated by the Royal Commissioners as having averaged 69 per 1,000, while that in the army at home was from 18 to 20 per 1,000. Even assuming, however, that these figures were correct for the preceding half century from which the average was drawn, they failed to give an accurate idea of the death-rate at present existing either in India or England; so great an improvement has been effected in the health of the army within the last 10 years, owing to the efforts which have been made to improve the condition of the soldier, that, while the mortality among the troops at home does not now exceed nine or ten per thousand, the average in India has been steadily reduced to 28 per 1,000 in 1862, 25 in 1863, and less than 21 in 1864.

One of the most important sanitary measures taken in the year under report was the promulgation of the rules laid down by the Commission appointed to inquire into the cholera epidemic of 1861, the chief of which is the instant removal of troops from the place in which the disease has appeared, and the cutting off of all communication with the infected locality. The practice of throwing dead bodies into the rivers running under cantonments was also prohibited. A small sanitary depôt for affording change of air to the garrison quartered in the palace at Delhi was obtained by the purchase of a house, formerly belonging to Hindoo Rao, on the neighbouring heights.

A scarcely less destructive agent in the army than cholera is venereal disease, at least a third of the whole army passing through hospital during the year on this account alone. An Act which was passed by the Governor General (No. XXII. of 1864) enables the Government to frame rules for exercising a strict control over military cantonments; and further remedial measures are under consideration.

5. BARRACKS AND HOSPITALS.

The scheme for improving the barrack accommodation has been already mentioned under the head of Public Works. The plans of these buildings, as well as those of the hospitals, are, in all essential respects, similar to those recommended by the Royal Sanitary Commission, by that appointed to consider the improvement of barracks and hospitals, and by Miss Nightingale. Female nurses have been introduced into the two principal hospitals in Calcutta, and the female wards of all regimental hospitals. Much attention has also been paid to the improvement of the soldiers' beds, bedding, and camp equipage; to their diet, particularly with regard to the quality of the meat; to the water supply, the

the reduction of the amount of spirits issued from the canteens, the provision of malt liquor at a cheap rate being proportionately increased, and to general measures of conservancy.

A system of regimental workshops was instituted by Sir Hugh Rose in 1861, and at the end of 1864 it was in full working order in 68 regiments and batteries, giving regular employment to 791 men, whose work realized 15,787 *l.* during the year. Annual exhibitions of the produce of these workshops were instituted at Peshawur and Lahore, and prizes of money were distributed. 6. Workshops.

Soldiers' gardens have also been established with marked success. They are of two kinds, small plots attached to the barracks, and large gardens situated at a convenient distance, usually laid out with taste, and often bringing in a considerable profit. The Commissariat Department is bound, when practicable, to have recourse to the soldiers' gardens in providing vegetables for the troops, and prizes are given to those who have been the most industrious and successful. 7. Gardens.

In accordance with the recommendations of a Committee of experienced officers appointed by the Commander-in-Chief, to consider the question of providing recreation rooms for European soldiers in India, it was determined to construct, for each British regiment, fives courts, skittle alleys, a gymnasium, swimming-baths, accommodation for workshops, a reading room with a recreation room and refreshment shop attached to it, a cricket ground, a sergeants' mess with reading and recreation rooms, and a women's day-room for each wing. 8. Soldiers' Amusements.

A system of promotion was laid down for European officers who have been nominated to unattached ensigncies in reward for meritorious conduct as non-commissioned officers. Under the new rule, five years' service as ensign will confer the unattached rank of lieutenant, and seven years passed in the latter grade will give a title to promotion to that of captain. The rank of field officer will only be granted in the case of distinguished service being performed in the grade of captain. 9. Unattached Officers.

A capitation allowance of 2 *l.* per man was authorised to be issued for each effective member of volunteer regiments. Commissions were granted to the officers of the Behar Mounted Rifles, a corps comprising 120 gentlemen, most of whom are indigo planters or members of the Civil Service. 10. Volunteer Corps.

The rate of pay laid down in the Royal Warrant of 1859 for veterinary surgeons of the British army was in 1865 made applicable to those of the Indian service. 11. Veterinary Surgeons.

In the year under review, the rates of pay and the pension rules of the medical officers were revised, and a rule was laid down whereby all assistant surgeons of 12 years' standing were to be promoted to the rank of surgeon, the result being the immediate promotion of a large number of officers of that class, and the equalisation of the rate of promotion for the future more nearly to that prevailing in the British army. The additional expense incurred by the Government in consequence of this measure was very heavy. 12. Medical Officers.

Subsequently, a Committee was appointed to consider the general question of the number and distribution, &c., of the medical service in future, and their report is under consideration.

A system of good-service pensions, based on that adopted in the British army, was sanctioned in 1864, for officers of the Indian service; and 50 pensions of 100 *l.* a year were allotted to distinguished officers, chosen both from the staff corps and the general roll of the army, including the new Brigades of Artillery and Line regiments. 13. Good-service Pensions.

Before stating the measures which have been adopted in the last few years, in dealing with the officers of the late East India Company's army, it may be well to recapitulate very shortly the circumstances which led to the great changes that have taken place in the constitution of the Indian forces. 14. Measures adopted with regard to the Officers.

Intelligence of the mutiny of the Native troops at Meerut reached England in the middle of 1857; and, immediately after providing for the despatch of reinforcements, the Court of Directors instructed the Government of India to assemble a Commission, composed of officers of the three Presidencies, to assist that Govern-

ment "in forming wise conclusions on the most important subject which must soon "press for decision, namely, the proper organization of our army in India;" and, among other points, they desired that attention might be particularly given to the best mode of providing European officers for staff and detached employment, without injuring the efficiency of regiments.

The Act of Parliament which transferred the Government of India to the Crown, in 1858, directed that the military forces of the East India Company should be deemed to be the Indian Military Forces of Her Majesty, and should "be entitled to the like pay, pensions, allowances, and privileges, and the like "advantages as regards promotion and otherwise, as if they had continued in "the service of the said Company." It was at the same time provided, that the Secretary of State for India should have "all such or the like powers over all "officers appointed or continued under this Act as might or should have been "exercised or performed by the East India Company."

Whilst the Bill was in progress, a Royal Commission was appointed to inquire into the "Organization of the Army at present serving in the pay and under the "control and management of the East India Company." It was composed of the Secretary of State for War, the President of the India Board (afterwards Secretary of State for India), the Commander in Chief, the Adjutant General, three other general officers of the British army, and four officers of the East India Company's Service. They made their report in March 1859, and recommended a very considerable increase of the European and diminution of the Native army; but they stated that, on the question whether the European army should continue to be recruited for local service, or should be entirely composed of British regiments, they were unable to come to any unanimous conclusion, the majority, however, being in favour of the latter course.

In August 1859 an Act of Parliament was obtained, authorising the increase of the local force from 20,000 to 30,000 men, the fact being that the legal number had been exceeded, and it was necessary to pass this Act in order to cover the illegality. Shortly afterwards, however, the claim of the local European soldiers to their discharge, on the termination of their service under the East India Company, decided Her Majesty's Government to adopt the course recommended by the majority of the Royal Commission, and to discontinue raising European troops for local service in India; and an Act was accordingly passed in 1860, repealing all former Acts which conferred on the Government any power to do so.

The guarantee clause was repeated in this Act, and reiterated in the Despatches of the Secretary of State and the General Order of the Government of India, under which the measures of amalgamation were carried into effect.

The question which has now for several years agitated the Indian army is, whether or not this guarantee has been maintained; and it is, therefore, desirable to endeavour, as far as possible, to ascertain what was the real meaning of Parliament in securing to the Indian army the privileges and advantages which it would have enjoyed under the East India Company.

In the Report of the Army Organization Commission, it is stated that these advantages may be briefly described as consisting "in a prescriptive right to rise "strictly by seniority to the rank and emoluments of a colonel of a regiment, "with the option of retiring before attaining that position, or after various periods "of service on a scale of pay or pension considerably higher than that granted "to officers of Her Majesty's army of the Line."

In the Appendix to that Report, the conditions are divided into five heads, as relating respectively to the promotion, pay and allowances, furlough, and retirement of the officers, and to their claims as subscribers to the funds of the several presidencies. As no regulations have been made affecting any officer on the last four points, unless he should voluntarily change his position, the only question to be considered is, whether the conditions with respect to promotion have, or have not, been infringed.

The description of these conditions is as follows:—"The officers of the Artil- "lery and Engineer corps rise in their respective arms by seniority. In the "cavalry and infantry they rise by seniority, in their respective regiments, to the "rank of major; they then take their place in the gradation list of their respective "branches, and are promoted by seniority therein to the regimental rank of lieu- "tenant colonel; they continue in these separate regimental gradation lists for "succession to regiments, and to the colonels' allowance. The whole of the "lieutenant-colonels of artillery, engineers, cavalry, and infantry, are arranged "in

" in one gradation list for promotion to the brevet rank of colonel and general " officer; and promotion to these grades is regulated according to the provisions " of the Royal Warrant of October 1854; this brevet rank does not affect their " succession to the colonels' allowance. Subalterns after 15 years from the date " of their first commissions are promoted to the rank of captain by brevet."

It can hardly be supposed that the Court of Directors had not power to carry into effect any measure of reorganisation or reduction which the exigencies of the service might demand, or that they would have failed to exercise that power when necessary, although they would no doubt have done so with the utmost regard for the existing interests of their officers.

On more than one occasion their views were placed on record, in cases which in principle were somewhat parallel to that which was caused by the mutiny and disbandment of the Bengal army, although there is little comparison in the importance of the changes effected, and the magnitude of the difficulties attendant thereon.

In 1823 the Court of Directors wrote as follows to the Government of India:—" We cannot too strongly express our condemnation of the statement " contained in your letter, where it is broadly assumed that the Court of " Directors cannot, without breach of faith, interfere with or diminish any of the " scanty allowances or advantages, as they are called, granted to the officers of " the Bengal army by the arrangement of 1796, which extraordinary position is " attempted to be upheld by reference to great authorities and eminent individuals " engaged in framing it, which caused it to bear, in the eyes of the Company's " armies, the sacredness of almost a direct Royal and ministerial 'pledge.' . . . . " That the Company are bound by the arrangement of 1796, or by any other " proceeding, to anything more than a reasonable attention to the fair claims and " interests of their servants, as well civil as military, is a doctrine altogether " imaginary and unfounded, at variance with the principle of the relation in " which the employers stand to the employed; a doctrine, the principle of which, " if once admitted, would subvert all the control exercised by the East India " Company over their servants, and which it is, therefore, your bounden duty " not only merely to abstain from advocating or encouraging, but, at all times, " and upon all occasions, absolutely to discountenance and suppress. . . . . We " deem it sufficient to remark that the present state of India does not render it " necessary to frame military arrangements upon the same principles and views " as operated in the minds of antecedent Governments. . . . . We have the un- " doubted right to revise and alter all allowances made to our servants of all " classes and ranks; and, however inexpedient it may be lightly and frequently " to disturb arrangements of that nature, our Governments are not justified in " setting up on behalf of the service, of which they themselves are a part, a " claim to consider as irrecovable any instructions which we may issue. Doctrines " of this sort, seldom or never confined to the members of Government and " their immediate confidential servants, have a tendency to stir up discontent, " and to create resistance to all orders from Europe which may appear to trench " upon the personal advantages of the Company's servants in India, and might " if admitted, tie up the Court's hands in making improvements indispensably " necessary for the general advantage of the service, as well in the present as in " any future arrangements."

Again, in 1830, on the introduction of the half batta order, the revocation of which, by the Secretary of State, has been already mentioned, the Court of Directors stated that " it is an undoubted right inherent in all Governments to " augment or reduce the allowances of public servants, as the circumstances of " the State may require. . . . . But," they added, "while we thus show the " misapprehension into which many have fallen upon this point, and distinctly " uphold the justice of our recent order, and our inherent right to alter the " allowances of our officers as circumstances may seem to us to require, we at the " same time acknowledge their claim to our favourable and indulgent consider- " ation." And, in another despatch of the same date, they complained that no endeavour had been made by the Government of India " to show how untenable " was the assumed ground of an unalterable compact between the Army and the " Government."

Where the right to effect all the necessary reductions, and to make any improvements which might appear requisite for the general advantage of the service, irrespective of previous arrangements, is so distinctly and positively laid

down, it seems scarcely necessary to show that special measures contravening the ordinary principles of promotion were in actual practice adopted by the Court of Directors in particular instances, such as on the reduction of two lieutenants and one cornet or ensign in each regiment in 1828, or the raising of new corps after the Cabul massacre in 1842.

That they contemplated very material changes in the organisation of their army is apparent from the instructions given by them to Lord Canning in 1857; and it appears evident that, in exercising the power to make the alterations which have been carried out, Her Majesty's Government were only acting as the East India Company might have acted, and that, in the words of the Royal Commissioners of 1863, "the language of the Act could not have been intended to "prevent the Crown, if, in the interests of India and of the Empire at large, it "should deem it necessary, from reducing the numbers of the Indian army, or "altering its organisation. It would have been in the power of the Company to "make such reductions and changes, and a similar power was transferred to the "Crown. All we can understand Parliament to have guaranteed to the officers "is, that, in making any such reductions, their interests should as little as pos-"sible be interfered with, and that, in any change of organisation, the Crown "should, as no doubt the Company would have done, preserve all the rules as to "pay, pensions, allowances, and privileges, and the like advantages as regards "promotion and otherwise, which existed at the time the Act was passed, or, "if in any case that should be impossible, then that some counterbalancing "benefit should be given to compensate any advantage which it might be impos-"sible to retain."

It remains, therefore, to be seen whether the "favourable and indulgent con-"sideration," and the reasonable attention to their fair claims and interests, to which the East India Company justly acknowledged that their officers might lay claim, has not been displayed by the Secretary of State for India in Council in the measures adopted towards the army, and whether "counterbalancing "benefits" have not been granted, if not to every individual officer, at least to every class of those who have in any way suffered from the reductions which have been effected, or the establishment of the staff corps which it was necessary to form on terms that would offer an inducement to British as well as local officers to attach themselves to Indian service.

During the progress of the Act of 1860 through Parliament, a committee of six officers, three British and three Indian, with Lord Hotham as chairman, was appointed to prepare suggestions as to the measures which it might be advisable to take for amalgamating the European forces of the Indian army with the general army of the Crown. Their report, dated on the 30th of August 1860, recommended that a staff corps should be formed, to which officers of the Line and local armies should be eligible, with special rates of pay, and promotion according to length of service; and that the promotion of officers who might not enter it should go forward in the cadres regularly and in the established order; but they considered that it might be a question whether the great number of vacancies which would be caused by the formation of that corps should be wholly or only partially filled up in the ordinary course, as regard must be paid to the inequality of promotion that would arise; and they suggested that a gradual reduction of the number of captains might properly be effected. They also recommended the grant of increased pensions or bonuses to induce the older officers to retire, if the Government were disposed to offer them to so many as 120, though they were not prepared to say that so large an outlay was actually necessary. In the event of that course being adopted, they thought it would be hard that the service should not have the benefit of all the vacancies thus created, so that promotion, already slow, might not be checked. As regards the colonels' allowances, they thought that no reduction should be made in consequence of a change of organisation, unless the number of the regiments and the strength of the army was reduced; but in that case they stated that the number of colonels and of their allowances must necessarily be reduced also. They proposed a scheme of amalgamation of the Artillery and Engineers with the Royal corps of those arms; and they made some suggestions with reference to a fusion of the lists of general officers in the British and Indian armies.

On the 16th of January 1861, a Royal warrant was issued, authorising the formation of a staff corps in each of the three presidencies; and, in several despatches dated on the 18th of that month, the Secretary of State communi-

cated

cated to the Government of India the various measures connected with the amalgamation which it had been determined to carry into effect. On the 10th of April 1861 a general order was issued by the Governor General in Council embodying the whole scheme.

As regards the officers, these measures are as follows:—

In the regiments of artillery, which have been assimilated to the Royal regiment of that arm, the rank of colonel commandant has been established, the number of field officers increased, the rank of major abolished, and all existing majors at once promoted to that of lieutenant colonel (this change was made in 1858, during the administration of the East India Company), the rank of second captain introduced, promoting many of the senior lieutenants, and that of second lieutenant abolished, all of that rank being promoted, and all captains and subalterns brought nearer to the grade of lieutenant colonel. The additional pay in consequence of these promotions amounts to not less than 75,000 *l.* per annum.

The organisation of the Indian regiments of Engineers has also been assimilated to that of the Royal Engineers, and the number of officers of the higher ranks increased, the extra charge in this case being 55,000 *l.* a year.

The corps thus benefiting by the change comprised 947 officers. The only alteration unfavourable to the corps is, that, it being found that more officers were in receipt of colonels' allowances than the home establishment authorised, it was decided to absorb the supernumeraries gradually, by omitting to promote on every fourth vacancy. On the other hand, the number of the higher ranks, with the corresponding pay, was at once increased; and to some of the older officers who had but slightly participated in those advantages special annuities were subsequently offered, in consequence of which seven colonels of Artillery and six of Engineers retired, and promotions were made in their places.

Three regiments of cavalry and nine of infantry were added to the British army, and the officers of the first three regiments of European cavalry in Bengal, and of the 1st, 2d, and 3d European Infantry regiments in each presidency, that is, all the regiments of infantry which existed before the mutiny, were invited to volunteer for general service with the new corps. Nearly all accepted the offer, and the vacancies were filled up by volunteers from other regiments. The number of Indian officers thus provided for was 403.

All officers holding permanent Staff appointments, whether purely military, as in regiments of the native army, or civil, as in employment on political duty, public works, &c., and also those who had held such appointments within the preceding three years, were offered the option of joining the Staff Corps, with its rates of pay and promotion; but, in the event of their declining, they were allowed to retain the Staff appointments which they were then holding; 1,318 officers availed themselves of the offer, and entered the Staff Corps, in most cases gaining considerably in promotion and pay.

Special inducements were at various times offered to the older officers to retire. To every one who was entitled to his full-pay pension an additional annuity of 50 *l.* was offered, and subsequently all lieutenant colonels and majors, and a certain number of captains of 25 years' standing, were permitted to retire on the pensions of their rank, with extra pensions varying from 550 *l.* to 200 *l.*, calculated on the value of their expectancy of colonel's allowance. About 300 accepted these offers, and the annual charge incurred by the Government was 64,560 *l.* beyond their ordinary pensions, which amounted to 100,807 *l.*

In consequence of these retirements, promotions were made of 449 officers, viz., 49 lieutenant colonels, 87 majors, 123 captains, and 190 lieutenants; and the position of every officer was more less improved.

To those officers who voluntarily accepted the offers made to them as tending to their advantage, must be added, in considering the number who have in no way suffered from the measures of the Government, the 679 young officers nominated since December 1858, to whom notice was given that their appointments were made subject to any alterations which might be determined upon, as well as the older officers who were already in receipt of colonels' allowances, and who are therefore unaffected by the change.

It is, then, amongst the remaining officers that the only cases can exist in which there is any foundation for a complaint that the guarantee has been violated. All of these have derived considerable promotion by the retirements

which have taken place in consequence of the extra annuities granted to the older officers, and they have been assured of rising by seniority to the highest ranks, with the pay of those ranks, in the same manner as if the separate Indian army had still existed; and this, although the Native army has been reduced by 130,000 men, and the organisation of the force which remains has been entirely remodelled on a system which allots only seven officers to each regiment instead of 26.

The following questions, then, suggest themselves for consideration. What are the causes which operated to the injury of any of these officers? Were they attributable to the amalgamation of the two armies to which the guarantee applied, or to the reduction consequent on the mutiny, which must have been effected by the East India Company? And were the remedial measures which have been adopted sufficient to satisfy the just expectations of the army? It is not, however, the object of this report to do more than recapitulate what actually was done.

That hardship had been felt in many cases could scarcely be doubted, from the number of memorials which were received from officers complaining of an infringement of the guarantee given by Parliament, and, accordingly, a Royal Commission was appointed on the 2d of May 1863, to report whether any departure from those assurances had taken place.

The Commission was presided over by Lord Cranworth, the other members being the Earl of Ellenborough, Lord Hotham (Chairman of the Committee in 1860), Mr. Henley (who was the mover of the "Guarantee" Clause in the Act of Parliament), Sir Charles Yorke, Major General Clarke, and Sir Peter Melvill.

Their report, which was dated on the 9th of November 1863, after stating their opinion, already quoted, on the construction which they conceived that the Parliamentary guarantee must be held to bear, proceeded to discuss the several points complained of in the memorial.

The principal ground of complaint was the formation of the Staff Corps, it being held by the memorialists that, as it constitutes substantially a new regiment, the retention of the names of the officers removed to it on the cadres of their old regiments was an infringement of the well-acknowledged rule of the service under which the removal of an officer from a regiment invariably occasioned a vacancy, and so gave a step to those below him. On this point, the Commissioners gave their opinion as follows:—"We cannot think that it could have been "the intention of Parliament to bind the Crown to adhere strictly to these ordi- "nary rules, in the extraordinary circumstances arising from changes introduced "after the passing of the Act, when a strict adherence to those rules would give "to officers remaining in their regiments an unequal, and in most cases an extrava- "gant, advantage in regimental promotion. By the present arrangements with "respect to officers transferred to the Staff Corps, every officer remaining on the "old cadre of his regiment will have promotion, on the happening of any casualty "which, if no Staff Corps had been created, would have given occasion to pro- "motion. We cannot think that Parliament meant to assure more than this. "The officers would have a right to complain of any changes which would have "the effect of retarding their promotion; they can have no right to complain "that such changes do not advance it. We cannot therefore think that, so "far as promotion is concerned, the retention upon the cadres of their old regi- "ments of the names of officers transferred to the Staff Corps is practically a de- "parture from the assurance given by Parliament that Indian officers should, on "the transfer of the local army to the Crown, retain all their previous advan- "tages."

A further objection to the establishment of the Staff Corps was, that the rules gave superior rank to officers appointed to that corps, and so caused extensive supersession of the officers remaining with their regiments. On this point the Commissioners thought that there were solid grounds for complaint, and that the Parliamentary assurance had not been adhered to.

The next point complained of was the retention on the cadres of their former corps of the names of those officers who joined the new Line regiments. This measure the Commissioners viewed in two ways:—1. As regards those who were taken from the old local European corps, which were converted into the Line regiments; and in this case they held that to carry out the usual rule of giving steps in all vacancies thus occasioned to the officers remaining on the cadre would have caused such extravagant promotion as to produce a result forbidden

by reason, and not in the contemplation of Parliament. 2. As regards those who were brought in from other corps, not the representative regiments, in which case they held that promotion ought to be given on the transfer of the officer to the Line regiment.

The retardation of the promotion of regimental officers, in consequence of those transferred to the Staff Corps or the new Line regiments being not exposed to casualties to the same extent as if they had remained with the old regiment, was, in the opinion of the Commissioners, of an unappreciable character, and not affected by the guarantee of Parliament.

As regards the gradual reduction of colonels' allowances in the Artillery, the Commissioners held that the principle on which the change had been made was just; that immediate pecuniary benefits were secured to all whose interests were affected, likely, in the case of the junior officers, to exceed the loss occasioned by retardation; and that what had been done was not a breach of the guarantee.

The very extensive reductions of the Native regiments rendered it impossible to adopt a similar rule for the gradual reduction of colonels' allowances in the Cavalry and Infantry; and it was therefore decided that a lieutenant colonel, after holding that rank for 12 years, should become a full colonel, and draw the colonel's allowance. The Commissioners held that the question, whether 12 years was a fair average, must be tested by time, and a reduction of the qualifying period made if necessary.

The next point complained of was, that, in the vacancies occasioned by the retirement of the older officers on special annuities, while promotion had been given in the room of each captain or major who accepted the pension, the places of only half the number of retiring lieutenant colonels had been filled up. The operation of this arrangement had, the Commissioners stated, been very unequal, and they were unable to calculate the loss or advantage which had fallen to the lot of the different regiments; but they considered that the guarantee had been departed from, where loss could be ascertained to have taken place.

Another complaint raised in the memorials was, that, owing to the small number of officers interested in subscribing a bonus for the older officers to retire, the latter are unable to recover, in their turn, the money which they have previously contributed for a similar purpose. In this case, the Commissioners held that the guarantee only extended to privileges and advantages existing between the East India Company and the Army; that the Company was not a party to the system of giving a bonus on retirement, except as having given an assurance that they would not interfere to prevent it, unless under financial pressure, and with due notice; that all which could be asked of the Crown was to assume the same passive state; and that, the system being illegal, Parliament could not have meant to guarantee its continuance.

A few memorialists complained of an order whereby colonels residing in India, but not required to do so, are no longer entitled to Indian allowances: but the Commissioners stated that this regulation was one which the Company would have revoked, if it seemed expedient, and that it could not have been intended to compel the Crown to give extra pay to officers for remaining in India, when their services were not wanted.

For a similar reason, they held that there was no valid ground for the complaint of certain lieutenant colonels of Artillery, because the antedating of their commissions, which had taken place in 1858, to the supersession of some officers in the Cavalry and Infantry, had been cancelled in the following year. The correction was one which the Court of Directors might, and probably would, have made.

The rule by which colonels of the British and Indian Armies, who attained that rank after the 17th of February 1861, were to be placed on one general list for promotion to the rank of major general, but were not to be promoted until all the colonels of both armies of an earlier date had become general officers, was complained of, both by the officers of Artillery and Engineers, with respect to whom the Commissioners were unable to say what would be the effect on their prospects, although the change would ultimately be very slightly beneficial to the Ordnance Corps as a whole; and also by those of the Cavalry and Infantry, in whose case the Commissioners thought an injury would be inflicted of by no means an imaginary character, causing great delay in their promotion, with no countervailing advantage. In this respect, therefore, they were of opinion that the Parliamentary assurance had not been fulfilled.

The complaint that a due number of general officers had not been allotted to the Ordnance Corps, the Commissioners held to be unfounded; and in a few other minor points they pronounced an opinion that there was no ground for complaining of a violation of the Parliamentary guarantee.

On receiving this report, Her Majesty's Government adopted measures for redressing the grievances on the three points in which the Commissioners considered that the guarantee had been violated, namely, the supersession of officers remaining with their regiments by those who joined the Staff Corps, the retention on the cadres of Native Corps of the names of officers who joined the new Line regiments, and the arrangements for the future promotion of officers of the Indian Army to the rank of general officer.

To meet the first objection, they granted the brevet rank to all officers of the Indian Army, of captain after 12 years' service, major after 20, lieutenant colonel after 26, and colonel after 31 years, by which means the supersession of a regimental officer by one in the Staff Corps is avoided, except in certain special cases, where an officer had been previously superseded by one junior to him.

Secondly, they directed that the names of all officers who have joined the new Line regiments from the Native Cavalry and Infantry, and also from those of the old European regiments which had not been converted into Line corps, should be removed from their cadres, and promotion given in their place.

And thirdly, as the Royal Warrant regulating the future amalgamation of the field officers of the British and Indian Armies had not come into operation, they so far modified its provisions as to retain the whole of the officers of the Cavalry and Infantry of the Indian Army on the general list of that service as before, for promotion to the rank of general officer.

It being found that the rule by which promotion had been given in the room of only half of the lieutenant colonels who accepted the special annuities, had worked unevenly at the several Presidencies, the promotion of eight majors of the Madras and Bombay Armies was directed, in order to render the reduction therein uniform with that carried out in Bengal.

The Commissioners having been unable to determine the effect produced by the Royal Warrant upon the future prospects of the Ordnance Corps, Her Majesty's Government resolved to give to each branch a separate establishment of general officers, calculated in the same proportion as that of the old Royal Artillery and Engineers.

In order to bring the field officers of the Staff Corps on to the general list of the British Army, a Royal Warrant was issued, directing the removal to that list of all colonels of the Staff Corps whose commissions as lieutenant colonel might be dated subsequent to the 17th of February 1861, leaving those of earlier date to rise to the rank of general officer on the Indian list.

The Commissioners had reported that no infringement of the guarantee was involved in the retention, on the cadres of regiments, of the names of officers who joined the Staff Corps, and, irrespective of the very great expense which would have been caused by removing their names, and promoting in their places, a serious objection presented itself in the very unequal promotion that would have been given in different regiments. This, however, did not apply to the removal of the names of officers above the rank of major from the general regimental list, and Her Majesty's Government therefore directed that the names of all officers of the Staff Corps and new Line regiments should, on coming into the position of regimental lieutenant colonel on that list, be struck out, and promotion made in their places.

These resolutions were communicated to the Government of India, in a Despatch dated the 17th of June 1864.

These measures, however, failed to satisfy the officers of the Indian Army, and an Address to the Crown was carried in the House of Commons on the 2d of May 1865, praying Her Majesty "to redress all such grievances complained of by the "officers of the late Indian Armies, as were admitted by the Commission on the "memorials of Indian officers to have arisen by a departure from the assurance, "given by Parliament."

Accordingly, on the 26th of June, another Royal Commission was issued to seven general officers of the British and Indian Armies; one of them, Sir John Aitchison, acting as president, and they were directed to inquire whether the measures which the Government of India had, in the Despatch of June 1864, been instructed to adopt, were "effectual and sufficient for the purpose of "removing

"removing such causes of complaint" as had been reported by the first Commission "to have arisen by a departure from the assurances given by Parliament, or for "the purpose of giving a counterbalancing benefit in any cases where any rules as "to pay, pension, allowances, and privileges, and the like advantages as regards "promotion and otherwise, which existed when the Acts above referred to were "passed, have not been retained, and in what respects, and to what extent, if at "all, such measures fall short of what may be required for removing the causes of "such complaints, or for giving such counterbalancing benefit in lieu thereof."

On the 14th of September 1865, the Commissioners made a report, in which they arranged the points submitted for their consideration under five heads.

1. The retention on the cadres of Native regiments of the names of officers transferred to the new Line regiments.—These names having been removed, and promotion made in their places, the Commissioners reported the measure adopted to be effectual and sufficient.

2. The arrangements for promoting colonels of the Indian Army, of date subsequent to the 17th of February 1861, to the rank of general officer.—The measures adopted in this case were also pronounced to be effectual and sufficient, so far as they came within the scope of the inquiry.

3. The filling up of only half the vacancies occasioned by the retirement of the lieutenant colonels on special annuities, and the retention of the names of those retired lieutenant colonels on the regimental gradation lists, in order to regulate the promotion to colonel with colonel's allowance.—The Commissioners reported that, in effecting the necessary reduction of the army, whatever number of regiments were to be reduced, a corresponding number of colonelcies must have followed, and that the offer of annuities, and promotion in half the vacancies, was only one of the means devised for the purpose of alleviating the immediate pressure of this reduction. But they stated that experience had shown that the number of promotions made had fallen short of the number due to complete the revised establishment, by five lieutenant colonelcies in Madras and one in Bombay; and they were of opinion that, if promotions were allowed to that extent, in continuation of those already made, no loss would have been sustained of anything that could be claimed, either by regiments or officers. The rule of promoting to a colonelcy, after 12 years' service, as substantive lieutenant colonel, had, they added, completely removed any complaints which could have arisen from the retention of the names of retired officers on the lists for regulating promotion.

4. The rule fixing 12 years' service in the substantive rank of lieutenant colonel for promotion to colonel with colonel's allowance.—On this point the Commissioners differed from the Royal Commission of 1863, inasmuch as they considered that future experience would not afford a fair test whether 12 years was the proper period to fix; and, after making various calculations, they came to the conclusion that, as regards those who were lieutenant colonels prior to 1862, and who were to succeed to colonel's allowance either in the ordinary course of casualties, or after the completion of 12 years' service as lieutenant colonel, whichever might first occur, the time named was about two years in excess of a fair period.

In the case of those who became lieutenant colonels on or after the 1st of January 1862, with regard to whom the 12 years' rule had been made absolute, the Commissioners held that, as a general period, it might not be in excess. But they thought that it would bear hardly on many of the senior officers who were promoted on the 1st of January 1862, in place of those who retired on the special annuities, and that it would be for the advantage of the service to provide a means of relieving the Indian Army from old and worn-out officers. They therefore suggested an extension of the retiring regulations, under which graduated pensions are given, irrespective of rank; and they proposed increased pensions after the completion of 35 and 38 years' service.

5. The supersession of regimental officers by officers of the Staff Corps.—In dealing with this subject, the Commissioners recorded their opinion that the operation of the brevet had not only failed fully to remedy the special grievance complained of, but had created a new and continually increasing class of grievances. Complaints had been received that officers had now been superseded by some in the Staff Corps who had not superseded them before, and by

other regimental officers formerly their juniors, and that those holding brevet rank for field service had been superseded by others promoted under the general brevet for mere length of service. The Commissioners further observed, that the virtual establishment of a general gradation list for the whole Indian Army annulled every advantage previously obtained from regimental rise.

They therefore reported that, upon this point, the measure adopted by Her Majesty's Government had not been effectual and sufficient to remove the grievance originally complained of. They stated that the main ground of the grievance still existed, namely, the regimental connection between the local Line and the Staff Corps, by the retention of the names of Staff Corps officers on the cadres of their old regiments, as well as the non-removal of the names of those transferred to the new Line regiments, whilst the grievance itself had been aggravated by the disturbing effect of the general brevet. The removal of the names, they added, might not prevent supersession; but, belonging as the officers would then do to entirely distinct cadres, each body having its own distinct terms of service, such individual supersession would constitute no invasion of principle.

It will be observed that this part of the Commissioners' report treats of two distinct questions.

The first is, the operation of the general brevet, respecting which they were requested to state whether it was an effectual and sufficient measure to remove the supersession of regimental officers by those transferred to the Staff Corps. To the principle of this measure they make no objection, but they consider that its effect has been that of "aggravating instead of removing the original cause of complaint;" and they make a proposal, the adoption of which they admit might not prevent supersession, but which they, nevertheless, recommend, as it would constitute no invasion of principle.

The second is the retention of the names of the Staff Corps officers on the cadres of regiments to regulate promotion, which the Commissioners pronounce to be the main ground of the grievance, but which was not one of the points specifically submitted for their consideration, inasmuch as the Royal Commission of 1863 had stated that it was not a departure from the assurance given by Parliament.

XIII.—Marine and Transport.

1. Overland Transport of Troops. The question of adopting the overland route for the transport of troops to and from India has for some time been under consideration, and it has recently been decided to carry the proposition into effect from September 1867. Five first-class vessels are now under construction, adapted to the special service for which they will be required.

2. Weekly communication with Bombay. Another subject, which has for some time engaged the attention of Her Majesty's Government, is the advantage to be derived from the establishment of a weekly mail between India and England. The whole question of communication with India is now under the consideration of a Select Committee of the House of Commons.

3. Port of Calcutta. Owing in a great measure to the cyclone, 90 vessels grounded in the port of Calcutta during the year, of which five were totally lost. The state of the river was very satisfactory, and the practicability of improving the navigation by artificial means was demonstrated in the Dredge Channel, where the use of a rake for a few times opened through dry sand almost a straight passage with no obstruction.

An excessive amount of work was thrown on the Harbour Master's Department by the cyclone, nearly every ship having broken adrift, and many having carried their moorings with them. Of 186 moorings on the day before the storm, only 22 were saved.

Acting on the report of the Committee appointed to consider the best measures to be adopted, the Government of India sent to England a requisition for 100 screw-pile moorings, the first portion of which was sent out overland.

4. Port Canning. The number of vessels which entered the Mutlah during the year was 14. The cyclone was much less felt at Port Canning than in the Hooghly.

The

The establishments of the dockyard were re-organised during the year, in accordance with the recommendations of the Commissioners of Inquiry into Indian Accounts. 5. KIDDERPORE DOCKYARD.

The British Indian Steam Navigation Company commenced running monthly steamers between Madras and Rangoon, calling at Masulipatam, Cocanada, and Vizagapatam. 6. COMMUNICATION BETWEEN MADRAS AND BURMAH.

XIV.—MISCELLANEOUS.

The extinction of the trading privileges of the East India Company having to a great extent severed the bond of union which previously existed between India and the Straits Settlements, while their connection with China grew more and more intimate, Her Majesty's Government have, in accordance with the strongly expressed wishes of the inhabitants, for some time had under their consideration the expediency of transferring the superintendence of the Government of the Straits Settlements to the Secretary of State for the Colonies; and a Bill for carrying this measure into effect has been introduced into the House of Commons in the present Session. 1. TRANSFER OF THE STRAITS SETTLEMENTS.

On the 5th of October 1864, the neighbourhood of Calcutta was visited by a disastrous hurricane, which, originating near the Andaman Islands, and travelling in a north-westerly direction, struck the coast of Bengal at the Balasore Roads and Hidgellee. Thence it passed over Calcutta, Kishnaghur, and the Bograh district, and finally expended its strength in the Garrow Hills. The destruction caused by the gale was two-fold, that resulting from the violence of the wind, and that ensuing from a storm wave, which, rising to a height of 30 feet, flooded the country for a distance of eight miles on either side of the Hooghly. 2. CYCLONES. Bengal.

In Calcutta and the suburbs, 102 masonry houses and 40,698 tiled and straw huts were totally destroyed, besides upwards of 5,000 damaged; but the loss of life was happily very small, only two Europeans and 47 Natives being killed. The destruction of the finest trees in and around Calcutta inflicted a great injury on the town, and the quantity of decaying boughs and leaves so deteriorated the water in many of the tanks as materially to affect the public health.

The avenues in Fort William and the Botanical Gardens were destroyed, as were half the trees in the Governor General's park at Barrackpore, the avenue on the road to which place suffered to a still greater extent. Very considerable loss was inflicted both on the Government and the merchants by the destruction of upwards of 300,000 maunds of salt. The damage done to the public buildings was estimated at 55.000 *l.*, exclusive of those which were so irretrievably injured as to be beyond repair.

Considerable loss was sustained by the towns of Hooghly, Kishnaghur, and others to the north of Calcutta; but the devastation was infinitely greater in the southern districts, which were swept by the storm wave. In Howrah, 2,000 persons and 12,000 cattle were killed, and more than 150,000 houses destroyed. In Midnapore the loss of human life was 20,000, besides 40,000 head of cattle; at Goomghur three-fourths of the population were swept away; and out of 1,400 houses at Tumlook, only 27 remained standing. On Saugor Island there were but 1,488 survivors, out of a population of nearly 6,000, while 7,000 cattle were destroyed. In other parts of the 24 Pergunnahs, between 7,000 and 8,000 persons, and four-fifths of the cattle, were drowned; whole villages were swept away, and the sufferings of those who escaped were very severe, as for many days they were without food.

The damage caused to the shipping in the river was excessive; out of 195 ships within the limits of the port of Calcutta, on the morning of the storm, 145 were driven on shore, and 10 sunk in the stream; altogether, 50 were totally lost. A large emigrant ship went down, near Diamond Harbour, with 319 persons; and the steamer "Persia" foundered off the Sandheads, with the loss of all on board except two of the crew.

Immediate steps were taken by the local officers to supply food and water to the starving population, to bury the dead, and to clear the salt water out of the old tanks; employment was found for the people in digging fresh wells and repairing the embankments. A meeting was summoned by a private gentleman,

in Calcutta to raise subscriptions for the relief of the inhabitants; and the movement thus set on foot, aided as it was most nobly by the spontaneous liberality of the Parsee community at Bombay, very quickly produced a fund of upwards of 30,000 *l.*, the distribution of which was superintended by an officer of the Government appointed for the purpose.

Masulipatam.

Within less than a month, namely, on the 1st of November, the coast of Masulipatam was visited by another very heavy gale, on which occasion the storm wave, driven onward by the cyclone, rose between 12 and 13 feet above the ordinary high-water mark, and, rushing inland for an average distance of nine, and in one case 17, miles from the shore, submerged for the time an area of 780 square miles. The sepoys' lines were utterly destroyed; 78 men of the regiment and police, and 523 persons belonging to their families, were drowned, as well as at least 30,000 of the general population.

Prompt measures were taken by the Government officers to bury the dead, to relieve the starving, and to obtain a supply of water by opening new wells, and cutting a channel from the Masulipatam Canal; and, under the direction of the President of the Sanitary Commission, who was sent from Madras to superintend the relief operations, a new system of drainage was undertaken for the town.

Large subscriptions were raised, both in Madras and Bombay, which were principally devoted to aiding the inhabitants to rebuild their houses. The great destruction of the cattle and crops rendered necessary remissions of the revenue assessment to the amount of 48,087 *l.*, besides 3,160 *l.* advanced to enable the ryots to begin cultivation afresh.

India Office, 4 July 1866. *Henry Waterfield.*

EAST INDIA (PROGRESS).

STATEMENT

OF THE

MORAL AND MATERIAL PROGRESS

OF

INDIA,

1864–65.

(Presented pursuant to Act of Parliament.)

Ordered, by The House of Commons, *to be Printed,*
6 *July* 1866.

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STATEMENT

OF THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

FOR THE YEAR 1865-66:

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

Ordered, by The House of Commons, *to be Printed,*
2 *May* 1867.

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STATEMENT

SHOWING THE

MORAL AND MATERIAL PROGRESS OF INDIA, 1865-66.

I. Revenue.

The revenues and receipts of the year 1865-66 amounted to 48,935,220 *l.*, a sum exceeding those of the previous year by 3,282,323 *l.* Of this increase, 386,169 *l.* is due to improvement of the land revenue, 1,156,859 *l.* to opium, and 328,792 *l.* to miscellaneous receipts from public works; while the large amount of 1,841,303 *l.* under "Miscellaneous" is caused by a nominal entry made in order to adjust certain long-standing differences between the balances of some of the East India Company's loans, as shown in the books of the Government of India, and in the registers of the loan office, which the introduction of the new budget system has rendered it necessary to exhibit in the annual accounts. There is a loss of 589,576 *l.* in consequence of the expiration of the income tax, and of 181,435 *l.*, owing to a diminution of the sale of the Government salt in stock. The variations under the other headings do not call for special remark.

Land.

Unusually large remissions of the land revenue were rendered necessary in Bengal, one-half of which was the result of the damage done in the district of Midnapore during the cyclone of October 1864; but, in spite of this drawback, the receipts throughout the Lower Provinces showed a steady increase in the year 1865-66.

The scantiness and early cessation of the rains of 1865, however, followed by extreme heat in September and October, had a very injurious effect on the crops, and led to one of the most terrible famines experienced in India in recent years. The distress was exceedingly severe in Midnapore and some of the neighbouring districts of Bengal; but in Orissa, the sufferings resulting from the failure of the crops of 1865 were aggravated by heavy inundations which destroyed those of the following year. A commission has been appointed to inquire into the causes of the famine, the conduct of the relief operations, and the measures which it is desirable to adopt in order to prevent the recurrence of such a calamity. Its report has not yet been received.

The number of suits under the rent laws in Bengal, was larger than in any year since 1861-62. The only cause assigned for this unusual influx of business is that, possibly, the scarcity of food may have made it particularly difficult for landlords to collect their rents.

The circumstances connected with the sale of a tract of land in the Sunderbunds, of about 50,000 acres, to Mr. Schiller, were mentioned in the report* of last year. Shortly after sanction had been given to that sale, Mr. Schiller again came forward with his original plan for the formation of a Company to reclaim the whole of the Sunderbunds in the 24 Pergunnahs, Jessore, and Backergunge, from the River Mutlah to the Megna. The application has been complied with, on the condition that the land shall be held rent-free for 20 years, after which it will be liable to a gradually increasing assessment, reaching its maximum of about 9 *d.* an acre in the 51st year; one-eighth must be cleared in 10, one-fourth in 20, and one-half in 40 years; but resumption, in case of non-clearance, will take effect on each lot separately, as defined in the survey,

* Lords' Paper 188, and Commons' Paper 374, of 1866, page 8.

and not on the whole area; redemption may at any time be effected at the established scale of rates, subject to the fulfilment of the clearance conditions.

In February 1866, the Lieutenant Governor of Bengal, who was at that time making a tour in Orissa, finding that the zemindars and ryots were under an apprehension that, if they obtained water for their land from the East India Irrigation Company, their assessment would be raised at the termination of the existing 30 years' settlement, took the opportunity, when delivering an address at Cuttack, to state that, while it was not the desire or intention of the Government to benefit directly in any way by the sale or use of the water supplied by the Company, it would be unreasonable to suppose that there should be no increase in the rent which the ryots had to pay to the zemindars, or in the revenue paid by the zemindars to the Government.

This declaration was unfortunately accepted by both classes as an intimation that the assessment of lands benefited by the canal was likely to be raised, independently of any payment to be demanded as water-rate, and they, one and all, refused to have any dealings with the Company.

To remove this misunderstanding, a proclamation was issued in August, stating that lands receiving irrigation from the Company's canals would, in any future settlement, be treated precisely in the same manner as lands not receiving irrigation, the payment for the water being the sole charge to which those who took it could on that account be subjected.

This proclamation was, however, of little more effect than the previous declaration, and in September there were but 195 acres under irrigation, while the Company were ready to supply water sufficient for an area of from 70,000 to 100,000 acres.

The subject being brought to the notice of the Secretary of State by the Irrigation Company, Lord Cranborne addressed a Despatch to the Government of India on the 15th of December 1866, in which he, in the first instance, desired to be informed how far the present condition of Orissa would warrant a permanent settlement on the terms already laid down.* The Despatch proceeded to point out that the proclamation of the Bengal Government was ambiguous, and did not make sufficiently clear what was apparently the Lieutenant Governor's intention, namely, the enunciation of the correct principle that lands *receiving* water from the canals would be dealt with in precisely the same manner as others to which the irrigation was made equally accessible, but the owners of which might decline to avail themselves of the advantage.

* *See* Report of 1864-65, pages 5 and 6.

In stating the view of Her Majesty's Government, Lord Cranborne observed that it would be perfectly right and equitable, in any settlement of the Province of Orissa, to claim as Government revenue, there as elsewhere, one-half of the improved rental which, without touching the rate payable for the actual use of the water, would be demanded by the zemindar as a consequence simply of the proximity of the land to the canal. In the present depressed condition of the Province, however, the Secretary of State considered that it might be the more expedient course to proclaim that the existing settlement should remain in force, without alteration, for any term, not exceeding 30 years, which it might appear to the Government of India to be desirable to fix, with the view of regaining, by such an announcement, the confidence of the people of Orissa.

In accordance with this view, the Government of India have determined to continue the existing settlement for a further term of 20 years.

The rainfall of 1865 in the North Western Provinces was below the average, and the season was on the whole unfavourable, especially in the Allahabad and Benares Divisions, where the harvest was scanty. The collection of the land revenue was not, however, materially affected by the high prices and partial distress.

In the sale of estates confiscated for failure to pay the assessment, the prices realised have averaged 20¾ years' purchase of the Government demand, a proof, apparently, of the popularity with which the projected measures for a permanent settlement are viewed by the people.

At the foot of the Kumaon Hills is a waterless forest named the Bhabur, under the superintendence of the Commissioner of Kumaon, who, by a judicious scheme of irrigation, which is now nearly completed, has brought this once desolate tract into a condition in which its extended cultivation will be of great advantage in providing for the increasing population, and will give a large additional revenue on the expiration of the current settlement.

Considerable

Considerable progress has been made during the past year with the revision of the summary assessment in Oude, the net increase to the revenue in the districts in which the operations are completed being about 25 per cent.

It was mentioned in the last Report* that an inquiry had been instituted into the respective rights of the talookdars of Oude and their tenants. After the subject had been under discussion for about two years, an arrangement was determined on, which appeared to be as fair to all parties as the peculiar circumstances of the Province would admit, and likely to have gained the cordial approval of Earl Canning.

* Page 10.

As regards sub-settlements, the basis upon which the opposing claims of the two classes has been adjusted is, that the State shall make some sacrifice of its ordinary and legitimate dues, in favour of the talookdars, wherever, under the rules of assessment hitherto in force in such cases, an inadequate profit would have been left to the sub-proprietors; and that the talookdars shall resign a proportion of their rental equal to that given up by the State, or allow a moderate maintenance to the excluded sub-proprietors, in the shape of land to be held rent-free or on light rent rates, in lieu of all further claims of a proprietary nature in the soil.

In consideration of the advantage accruing to them from this settlement, the talookdars have voluntarily consented to make certain important concessions in respect of tenant right. They have agreed to recognise the right of occupancy on beneficial terms in a large body of the ex-proprietary class, tillers of the lands once owned by themselves or their ancestors. This concession, involving the interests of such cultivators as have settled hamlets, reclaimed wastes, or added by improvements to the selling value of their fields, will embrace, in the aggregate, a large body of the cultivators of the province, and of those classes especially which claim most strongly the sympathy of the British Government. The liberal policy thus inaugurated by the talookdars themselves will, in the long-run, redound to their own interests by the important impetus to the improvement of their estates which will follow the acquisition by the ryots of a better title, while it will tend to the contentment and comfort of the cultivators.

The satisfactory conclusion to which questions of so complicated a character have thus been brought is partly owing to the ability and judgment of the Government officers in Oude, and partly to the enlightened behaviour of the talookdars, and, in particular, Maharajah Maun Singh.

In Mooltan, Dera Ghazee Khan and Dera Ismail Khan the rainfall was so scanty in 1865-6 as to cause serious loss of cattle, and more or less distress among the agricultural population; but in other parts of the Punjab the landed interests flourished, in consequence of the high prices of agricultural products, and the large demand for grain which was caused by the scarcity in Bengal and Cabul.

Wheat was selling at higher prices in Lahore, Mooltan, and Umritsur than even when the famine was raging in the North Western Provinces, the increased rates being due in part to the greater demand, and in part to the opening out of new markets, by means of the Punjab Railway, and the improved routes to Sind and Bombay.

In the Central Provinces the revised assessment of the land-tax, for periods of 20 or 30 years, is now about four-fifths completed. Of the 10 most important districts, the work in five is finished, and in the other five it is expected to be accomplished in the course of the current year. The result of the revision, up to the present time, has been an increase of six per cent. on the whole amount of the land revenue; but even in Chutteesghur, where the rate has been raised 25 or 30 per cent., the tax is only 8*d.* per cultivated acre.

Advances of money, repayable by instalments without interest, have been made, in 152 instances, to landholders requiring the means of executing works of agricultural improvement, the recipients also spending considerable sums on the same works from their own resources; and the punctuality with which the instalments are repaid shows that they fully estimate the advantages conferred upon them.

The demarcation of waste lands is almost accomplished, and in every district there are valuable State properties, ranging from 300,000 to 700,000 acres, which are available for purchase under the waste-land rules, for occupation on clearance leases, or for rent as pasture farms. Registers are from time to time published in the local "Gazette," giving all details as to the soil, water supply, natural

natural products, climate, and rainfall, and proximity to markets or high roads. About 19,000 acres have been sold during the past year, making the total extent purchased up to the present time 51,000 acres; and, with the exception of one lot in Belaspore, the sale of which, on account of the insalubrity of the neighbourhood, was sanctioned at the rate of 6*d.* an acre, the average price realised has been 5*s.* 1*d.* per acre, or a little above the maximum upset price in the most cultivated districts. The great majority of the purchasers are natives of the Central Provinces.

Clearance leases for small tracts of land, each comprising not less than 100 acres, have been granted, in order to induce the gradual reclamation of the waste; the conditions are, a rent-free tenure for three years, a payment of 3*d.* an acre for the next seven, and 6*d.* for the next 10 years, after which the land will be liable to assessment in the usual manner, the lessee engaging to break up six per cent. of his grant every three years, until the cultivated portion reaches 30 per cent., and the property becoming his own when 40 per cent. has been brought under tillage.

Although the rainfall was equal to the average in the Central Provinces, it ceased before the end of August; and the consequence was, that the only abundant harvest of the year was yielded by the rice crops of Chutteesghur and the Wyne Gunga Valley. Of the other crops, some were tolerably good, and some very poor; but, though there were cases of individual distress, there was no approach to general want; and, the price of produce and rate of wages continuing to rise, the class which seemed to suffer the most was that of the subordinate Government officers and petty pensioners. The inability of Chutteesghur to send its usual convoys of grain to Nagpore, which was, therefore, compelled to draw its supplies from Jubbulpore, caused a great change in the internal trade of the Central Provinces. Food was, however, largely exported to the distressed districts of Behar and Orissa; and a constant interchange of commodities occurred with Berar and Candeish. Prices have risen so much that wheat and rice, which last year ranged from 12 to 16 seers (24 to 32 lbs.) for the rupee, can now only be purchased at 8 to 10 seers for that money, and in some places the price is even higher. It is remarkable how well the generality of the people are enabled to bear up against this increase of cost; and it is a common observation amongst the natives that the dearness of provisions, which 20 years ago would have excited riots in the towns and strewn the roads with the dying, is now scarcely noticed by the majority of the population.

The continued prosperity of the people in the Assigned Districts of Hyderabad was evinced by the ease with which the revenue was collected; and the high prices have produced no injurious effect upon the labouring classes, as their wages have increased in proportion.

The year 1865-66 was very disastrous to the agricultural community of British Burmah, owing to a murrain among their cattle, of which it is estimated that not less than 100,000 head died between November 1864 and April 1866, causing a direct loss of half a million sterling to the owners. In spite of this, however, the area of land under cultivation increased by some 50,000 acres; and an addition of 10,000 *l.* was made to the land revenue, after allowing for the remission of about 3,000 *l.* on account of the destruction of the rice crop by inundations in certain places. The surplus produce of rice exported was about 454,000 tons.

The Presidency of Madras suffered from excessive drought; but, nevertheless, the land revenue increased, furnishing a remarkable proof of the general prosperity, and the stability of the resources of this portion of India. The chief articles of food, however, cost from 40 to 50 per cent. more than they did five years ago.

The object of the Inam Commission was mentioned in the Report of last year.* Its out-door work has been finished, and the result is an addition of 150,600 *l.* to the annual revenue of the Government, the whole cost of the Commission since its appointment in 1859 having been only 94,412 *l.*, while the number of titles examined is 381,435, and upwards of 560,000 cases have been decided by the Deputy Collectors.

* Page 13.

In the revised settlement which is being carried out in Madras, the revenue to be paid to the Government is fixed at one-half of the net produce; and in the re-assessment of the Godavery district, which was completed in the year under report, particular care has been taken that this proportion should not be

exceeded. Wherever the new rates are considerably above those previously levied, they will be introduced gradually, at the discretion of the Settlement Officer.

In the northern division of the Bombay Presidency the rains commenced late, but the heavy showers which fell early in November proved of immense benefit, and the crops generally yielded well. The southern districts, however, were not equally prosperous; in Dharwar the failure of the harvest was serious; and in the Kulladghee and Rutnagherry Collectorates it was found necessary to provide special employment for the lower class of labourers in making roads, the want of which was much felt. In the last-named district the people have suffered much, in consequence of three successive bad seasons; and their state of distress was aggravated by the peculiar system of collecting the revenue, the assessment of a large class of cultivators consisting of a certain proportion of their crop, commutable into a money payment, calculated according to the state of the grain market, thus being most heavy when the price of food was at the highest rate. A new system of survey and assessment has been commenced, and it is hoped that this measure and the construction of roads will greatly improve the condition of the people.

The settlement of terminable inams, a scheme for which was sanctioned in the previous year,* has been completed in the southern division of the Presidency, and the annual income derived by the Government from the measure is upwards of 3,600*l.*

* Report for 1864-65, page 14.

In the Southern Mahratta Collectorates, the Government villages have for some years been brought under the survey settlement, and recently several holders of inams and jageers have requested that their estates also might be surveyed, they being at liberty to adopt or reject the rates, in the latter case paying the expenses of the survey; in case of adopting them, they guarantee those rates to their ryots, to whom they concede all the advantages of proprietary right which are ensured to the ryots in Government villages by the Survey Act. Under this arrangement the jageerdars secure a certain, and in most cases an increased revenue; and the people are preserved from arbitrary increase of taxation, or ejectment from their lands if they decline to submit to the terms imposed. In one instance, a chief, who had hitherto never succeeded in obtaining more than 6,646*l.* from his estate, has had his revenue raised to 8,500*l.*, and, while the former sum was only realized with considerable dissatisfaction to a large portion of his ryots, the revised assessment is placed on the land without reference to the position or influence of the ryot holding it, and the people appear to be completely satisfied. There is the additional advantage in these settlements that the people hold their title and tenure, which is a more secure one than they ever possessed before, direct from the British Government, a circumstance which cannot but increase their affection towards it, and give them an immediate interest in its stability.

In North Canara 41 villages have been settled; with the result of nearly doubling the revenue, and with an entire absence of complaint. In cases where the occupancy of waste land, subject to the payment of the assessment, was put up to auction, in consequence of there being more than one applicant, the average price fetched was nearly twelve times the total of the survey assessment.

Survey operations have been prosecuted with success in Khandeish, Gujerat, and Sind; and a survey of the town and island of Bombay is also being made by the Trigonometrical and Revenue Survey Departments. In the latter case considerable difficulties have been experienced, but they have been so successfully overcome, by the adoption of a conciliatory manner towards the native householders, and precautionary measures on the part of the officer charged with the conduct of the operations, that not a single complaint has been made against the department.

FORESTS.

In order that the experience gained in the last few years respecting the management of forests in India may not be lost, and that the administration of that department may not be entirely dependent on the few officers who now devote their attention to the subject, three persons, who have already received a practical training in France, Germany, or Scotland, have been appointed to the service in India, and measures have been taken for educating young men

in the Government institutions on the Continent, where they will acquire a greater knowledge of forestry than can be obtained in this country.

Considerable progress has been made, in the year under review, in introducing a sound system of conservancy into the forests of British Sikkim; and rules have been drawn up, defining those which are to be reserved from sale under the waste land regulations, and providing for their demarcation and exclusive management on behalf of the Government.

A scheme is now under consideration for the preservation of forest land in Jhansi, where the destruction of the trees has been going on for centuries, and the scarcity of shade appears to have intensified the parching nature of the climate, which dries up the water so much needed by the cultivator.

The attention of the landholders in Oude has been directed to the plantation of trees for fuel, in order to provide for the wants of the new railway from Lucknow to Cawnpore.

The price of fuel in the Punjab has greatly increased in consequence of the demand caused by the traffic on the railroad. Experimental plantations, which now cover an area of 2,500 acres, are being formed for the supply of firewood, and the operations will be extended. The desirability of planting the ground on either side of the railway, to the westward of Delhi, has been urged by the Home Government on the consideration of the Governor General in Council.

In the Central Provinces a large tract, on the southern slopes of the Sautpoora Hills, has been divided into three parts, which are to be worked in turn for the supply of timber and firewood, an arrangement calculated to meet the demands of the most populous part of those Provinces, at reasonable rates.

The practice adopted by the hill tribes of cutting the trees and burning the brushwood, throwing their seed on the land so cleared, and, after reaping the crop, passing on to another place, is being gradually checked, and in some cases has almost ceased.

The natives of the forest tracts in British Burmah, both Karens and Shans, seem inclined to enter into planting operations; and clearings have been made in the Tharrawaddy and Sittang divisions, with the view of forming plantations of young teak.

Good progress was made in 1865-66 with the teak nurseries in the Madras Presidency; and many valuable forest trees, which have been introduced from Australia, are thriving beyond expectation. The villagers in all the districts have been stimulated to raise groves, and in some parts very favourable results have attended the exertions of the Government officers. Nurseries for young trees are in process of formation in all the districts, and endeavours have been made, with fair success, to plant the sandy tracts along the sea-shore with the casuarina.

The conservancy of the forests in Coorg has now for the first time been placed under a special department, and they are found to contain much valuable timber of teak and other trees.

ABKAREE.

The superiority, on moral considerations, of the new system,* under which the duty on spirits is now collected, has been especially exemplified in the Central Provinces, among the Gonds and other hill tribes, who used to be notorious drunkards. Instead of roaming about from year to year, they are in some cases settling down into permanent habitations, and beginning to acquire property; and the women are heard to attribute this change to the new system of excise, saying that formerly their husbands could get drunk for 1 *d.* or 2 *d.*, and the liquor shop was almost at their doors, while now no man can do so under 6 *d.*, and he would have to go some little distance to get liquor at all.

* *See* Report of 1864-65, page 18.

INCOME TAX.

The Income Tax Act expired on the 31st of July 1865, and was therefore in force for only one quarter of the year under report, during which the receipts amounted to 671,900 *l.*

Some interesting statistics of its working in the North Western Provinces have been compiled, from which it appears that, in a population of 30 millions,

38,847 persons were subjected to the tax. In only 2,795 cases was any necessity found in the last year for changing the previous assessment; but the proportion of correct returns by the taxpayers themselves was less than six per cent., and the amount of surcharge was 282 per cent. The number of persons whose incomes exceeded 500 *l.*, excluding those drawing official salaries, fell from 1906 in 1863-64 to 1626 in 1865-66. Of the whole population, 44 per cent. have incomes under 70 *l.*, while 83 per cent. have less than 170 *l.* a year. Omitting public servants, the tax on whose incomes produced 13 per cent. of the whole assessment, the three largest classes of contributors were bankers or money-lenders, who paid rather more than one-third, agriculturists, from whom 24 per cent., and retail dealers, from whom nine per cent. of the total amount was levied. The average annual yield of a one per cent. duty on incomes above 50 *l.* per annum has been found to be a little more than 55,000 *l.*

A report submitted by the Income Tax Commission, of the working of the Act for four years in the island of Bombay, shows that, at any rate in the Presidency towns, this is by no means a difficult mode of taxation. The assessment in the first year amounted to only 92,500 *l.*, when the rate was at four per cent.; but in 1864-65, although the tax had in the meantime been reduced to three per cent., the realisations amounted to about 240,000 *l.* The unexampled prosperity of the community in the latter year, no doubt, contributed largely to this result; but a great deal was due to the improved means of ascertaining what was really the amount assessable, and to the taxpayers having become better acquainted with the obligations imposed upon them.

CUSTOMS.

The Customs tariff has been recently revised by a committee appointed for the purpose, and their recommendations have, in most instances, been adopted by the Government. The classification has been improved by the adoption of the English method of enumerating certain articles which are to pay duty, and declaring all others exempt, instead of specifying those which shall be free, and leaving everything else subject to duty, by which change a number of petty and vexatious charges are swept away. The number of articles to be taxed is greatly reduced, 40 headings being removed from the list of imports liable to the duty, leaving 65 classes chargeable, and the 88 articles which formerly paid export duty being reduced to nine classes. In one point the Government have gone beyond the recommendations of the committee, by exempting machinery from duty on importation.

To meet the loss of revenue thus occasioned, the export duty on grain has been raised from two to three annas (threepence to fourpence halfpenny) a maund of 82 lbs.; and the import duty on champagnes, and the more costly sparkling wines, has been increased from 2 *s.* to 2 *s.* 6 *d.* the gallon.

SALT.

In the Statement of the Progress of India in 1864-65,* the determination of the Government to sell its stock of salt by public auction was mentioned, and it had been intended to bring forward 1,500,000 maunds for sale during 1865-66. At the two sales, however, in July and November 1865, it was found practicable to dispose of only 525,000 maunds, although the upset price was fixed as low as possible with reference to the cost of Liverpool salt. It has therefore been decided to revert to the plan of sale at fixed rates, but after due notice materially to reduce those rates, the Government reserving to itself the right, in case of a falling-off in the importations, to raise the prices, after advertising for a reasonable period its intention to do so.

* Page 21.

In the North Western Provinces there has been a very large increase in the revenue derived from salt, in consequence of the revival of commercial confidence among the Native merchants, and the diversion of the capital of speculators from hazardous investments in cotton to the safe, though at times less lucrative, trade in salt.

The duty on Berar salt crossing the Customs line of the Central Provinces was raised in 1865-66 to 6 *s.* a maund, at which rate the Rajpootana salt has long been taxed.

II. FINANCE.

RECEIPTS AND DISBURSEMENTS.

The expenditure in India and England rose, in 1865-66, from 45,846,418 *l.* to 46,169,152 *l.*, showing an increase of 322,734 *l.* The principal headings under which the charges of 1865-66 exceed those of the previous year are the Army, the cost of which is 414,945 *l.* more than 1864-65; Expenses

of Public Departments, on which the excess is 528,961 *l.*; Miscellaneous, where an increase of 870,218 *l.* is due to the adjustment of the loan accounts already mentioned under the head of Revenue; and Home Charges, which have risen by 684,519 *l.*, chiefly owing to the entry of stores under this heading, instead of as hitherto in the Indian expenditure. The cost of collecting the revenue has decreased by 628,037 *l.*, mainly in consequence of advances having been made to a less extent to the cultivators of opium; and the guaranteed interest paid to railway companies has been reduced by no less than 1,524,754 *l.*, in consequence of an exceptional credit on account of arrears of traffic earnings at Bombay. The other variations between the two years are of minor importance.

On reviewing the income and expenditure during 1865-66, the result is satisfactory, there being a surplus of 2,766,068 *l.* (of which, however, considerably above one million sterling is exceptional or merely a matter of account), in place of the deficit of 193,521 *l.* shown in 1864-65.

INCREASE OF ESTABLISHMENTS.

During the year 1866, various measures have been sanctioned by the Home Government, which, while calculated to improve the administration of the judicial and other executive departments, undoubtedly tend to increase the civil charges very materially. In order to remove the inconvenience caused by the great difference that existed between the salaries of officers employed in the civil administration of the Punjab and Oude, and those in Bengal and the North-Western Provinces, a revision was effected, by which the position of the officers in the Punjab and Oude Commissions was improved, and some of the higher appointments in the revenue branch of the administration in Bengal and the North-Western Provinces were either altogether abolished, or paid at a lower rate than had previously been the case. An increase has been authorized of the pay of the judges belonging to the Bengal Uncovenanted Service, who were considered to be inadequately remunerated, with reference to the important part taken by them in the judicial administration of the country; and the salaries of the ministerial officers of the judicial and revenue courts throughout the Bengal Presidency have been raised, as difficulty was found in obtaining men of the necessary standard of qualifications, on whose integrity reliance could be placed, to undertake the duties. A revision has also been made of the allowances drawn by the officers employed in the Central Provinces, Ajmere and Jhansi. The additional burden thrown on the revenues of India by these several measures is upwards of 170,000 *l.* per annum.

DEBT.

In order to effect various improvements of great public utility at Bombay, the Government of India sanctioned the gradual sale of certain land, the proceeds of which were intended to defray the expenditure which had to be incurred. Owing, however, to the depressed state of trade in that city, which followed the speculations of the previous year, the receipts were found likely to fall short of the estimate by about 600,000 *l.*; and, as some of the works were of so urgent a nature that they could not be postponed, it was decided to obtain the money by the issue of Government debentures, the total amount of which should not exceed the above-mentioned sum, bearing interest at five per cent. per annum, and repayable at par in the proportions of 100,000 *l.* in 1868, 200,000 *l.* in 1869, and the remaining 300,000 *l.* in 1870.

ACCOUNTS.

An alteration has been made in the official year, which will henceforward terminate in India, as in England, on the 31st of March.

CURRENCY.

The value of the currency notes in circulation has reached to upwards of ten millions sterling. It was found that the amount rose during the prevalence of distrust in the money market, when notes were preferred to bills for purposes of remittance, and that it gradually fell on the restoration of confidence. Indications are not wanting, however, that the notes are by degrees becoming valued by the native population. During the religious fair held at Allahabad, the pilgrims tendered for cash a considerable number of notes of other circles, many of which had been issued at Bombay; and the talookdars of Oude prefer them to coin for keeping in their houses. The experience of their circulation in the city of Bombay appears to show that the most perfect feeling of confidence exists in the Presidency town as to their value, and that similar confidence might be extended throughout the country, if greater facilities could be afforded for converting them into cash.

The Commission which was appointed last year to consider the monetary system of India has made a report, which has been published in the "Gazette

of

of India;" but the views of the Supreme Government in the matter have not yet been forwarded to this country.

Some instances having occurred of forgery or alteration of the amount of the notes, new forms have been adopted which have been so prepared as to make such tampering with the currency paper as difficult as possible, without immediate discovery. The value of the note is now printed in English and in four of the vernacular languages, and the size or position of the medallion on which the amount is shown varies according to the value, so that persons who are unable to read may be able easily to detect an imposition in the case of a note of inferior amount being paid to them. The old notes will be gradually withdrawn from circulation, as they are received in the Government Treasuries.

Money Orders.

The money-order system continues to make steady progress in the public favour; and, while the number of orders issued has increased, the average value of each order has decreased, showing that the main object of affording to the people the means of safely and economically transmitting small sums of money from one station to another has been attained, without encroaching upon the general exchange operations of the country, or the legitimate business of banking firms. The measure has proved so successful in the Lower Provinces of Bengal, that the experiment has been extended to the rest of India.

The question is under consideration, whether postal savings banks may not be established, and persons be enabled to insure their lives, and purchase Government annuities, through the Post Office, as in this country.

III. Public Works.

Railways.

On the East Indian Railway, the bridge over the Jumna at Delhi has been completed during the last year, and passengers and goods are now forwarded from Howrah (opposite Calcutta) into Delhi, a distance of 1,019 miles, without a break, the trains being timed not to occupy more than 50 hours on the journey.

The completion of the chord line to Luckieserai is being urged forward as fast as possible, and it is hoped that by the 1st of January 1869 the double line will be completed between Howrah and Dinapore. Maharajah Joy Mungul Sing, K. C. S. I., and his brother, Baboo Mohindro Narain Sing, have granted, as a free gift, all the land within the limits of their estates which is required for the new line.

The influence of the scarcity of food in the eastern portion of Bengal was manifested in a diminution of the receipts from native passengers on the lines of rail passing through the suffering districts.

A guarantee of five per cent. per annum has been offered to the Indian Branch Railway Company, for the construction of so much of their projected Oude and Rohilcund Railways, as shall consist of a main line from Buxar, on the East India Railway to Moradabad, or such other point in Rohilcund as may be determined upon, with branches to Benares, Cawnpore, Fyzabad, and the foot of the hills near Nynee Tal. The works on the line from Lucknow to Cawnpore were vigorously prosecuted during the year, and it was expected that the railway would be opened on the 15th of April 1867.

The merchants of Umritsur and Lahore were not slow to avail themselves of the facilities for transporting their wares afforded to them by the opening of the Punjab Railway; and it was found necessary to organize special trains for the conveyance of the large quantity of goods brought to the stations at those towns; indeed, at one time the owners consented to have their cotton and other inflammable articles forwarded, at their own risk, in open trucks; and it is satisfactory to find that in only two instances, of a trifling character, did any loss by fire occur.

The Nagpore branch of the Great Indian Peninsula Railway has been completed, and it was opened for public traffic on the 20th of February 1867.

On the Great Southern of India Railway also an addition was made on the 3rd of December 1866, to the length of open line, by the commencement of traffic between Trichinopoly and Caroor, a distance of 47 miles.

A short extension of the Bombay, Baroda, and Central India Railway has been sanctioned, from Ahmedabad to the opposite bank of the Saburmuttee river. The additional length of rail is only a little over two miles, but it is

hoped that the conveyance of the line across the river may facilitate the opening of the rich tracts lying to the north-west of Ahmedabad.

A survey of the country between Baroda and Neemuch has been authorised, but nothing further is settled respecting the construction of a line of rail between those places. If such a measure be determined on, this railway would form an important link between Bombay and the Upper Provinces of the Bengal Presidency.

The traffic in the immediate neighbourhood of Bombay is gradually increasing, as the suburbs become populated by clerks in public offices and other persons of moderate incomes, who are unable to afford the high charges for rent in the city.

The Back Bay Reclamation Company having been compelled by the effects of the financial panic to suspend operations, the Government of Bombay have been directed to adopt measures for providing the land required for the extension of the Baroda Railway to Colaba, either by themselves continuing the work or by making it over to the Railway Company.

* Page 31.

The expectation which was expressed in the Report * of last year, that the traffic receipts might exceed the amount required to pay the guaranteed five per cent. interest, was realised in the case of both the Great Indian Peninsula and the East Indian Railways, in the first half of the year 1866; and the surplus profits were, accordingly, divided between the Government and the shareholders, according to the terms of the contracts.

In 1864 the attention of the Boards of the several Railway Companies was directed to the sanitary condition of the stations, and to the measures which were required for the better accommodation of the native passengers, who form the great bulk of the railway travellers, as well as for their protection from ill-treatment by the subordinate railway officials. Considerable improvement has been effected in these respects; more strict attention is paid to the cleanliness of the station rooms and carriages, and to the prevention of overcrowding; and buildings, furnished with wells, are being erected for the comfort of native passengers, the cost being defrayed by private individuals, by contributions from local funds, or, where these sources fail, by grants from the Government. The question of the best mode of providing appropriate accommodation for Native ladies of rank is under consideration.

A Bill is being prepared, in communication with the several Railway Boards, for the consolidation and amendment of the laws relating to railways in India.

A new system of audit has been introduced, which it is hoped will work efficiently, with very little additional expense, either to the Railway Companies or the Government.

Allusion has already been made to the instructions which have been issued with regard to the means of meeting the increasing demands for fuel for railway purposes. It has been suggested by the Secretary of State that planting operations should be continued on an extensive scale for several years, until the proportion of about 20 acres of plantation for each mile of railway is attained; and that this should be especially carried out in the reh or barren lands in the neighbourhood of the Ganges and other irrigation canals, where trees of certain kinds will grow, though nothing else thrives there.

The Salt Range coal, after two years' trial on the Punjab Railway, has been found unfit for the purpose; and, as the expense of transporting it is twice as great as that of wood, and the heating power is only one-third superior, its use has been for the present abandoned.

TELEGRAPHS.

The Select Committee of the House of Commons, which was appointed in 1866 to inquire into the practical working of the present system of communications between England and the East Indies, made a report on the 20th of July, in which, as regards the telegraph, they stated that messages for India are forwarded by one of two principal alternative routes, the one through Turkey, the other through Russia. On its way to Constantinople, a message may be dealt with by the French, Belgian, Dutch, Prussian, Austrian, Bavarian, Minor German, Italian, Servian, or Wallachian administrations; and thence through the Turkish, and sometimes also the Persian systems, it reaches the Persian Gulf line, which is under the control of the Government of India. The alternative route, in a similar manner, involves dependence on the Dutch, Prussian, Russian, and Persian administrations, before the telegram comes into the hands

hands of any officer responsible to the British Government. Thus there is much difficulty in tracing the cause of delays in the transmission, and imperfections in the rendering, of messages; and the public are rarely successful in obtaining compensation for any disappointment in consequence.

The submarine line, through the Persian Gulf to Kurrachee, with an alternative land line between that port and Gwadel, on the Mekran coast, has worked admirably.

The numerous complaints which had been made against the working of the line were, in the opinion of the Committee, attributable to two causes,—the imperfect administration of the Turkish system, and the neglect of the authorities in India to make adequate provision at Kurrachee for the immense amount of business which resulted from the opening of the line to Europe. The imperfection of the service through Turkey did not seem to be greater than was to have been anticipated from the introduction of a method of communication so novel to the habits of the people; and there appeared no reason to doubt that, by reserving one wire at least for messages to and from the East, by employing an adequate number of European officers and signallers well acquainted with the English language, and by careful attention to the condition of the line, the service might in time become satisfactory in its working.

With regard to the telegraphs in India, the defects were, in the opinion of the Director General, to be ascribed, in a great measure, to the circumstance that the officers of the Department were underpaid, and that little progress had been made in the thorough re-construction of the lines, which were hastily erected, in place of those destroyed during the mutiny. Great improvement had, however, taken place in the working, and efficacious measures were adopted for the establishment of a second wire from Kurrachee to the internal system of India, and otherwise to redeem that part of the service from the reproach cast upon it.

After alluding to the various schemes for constructing alternative lines of telegraph to the East, the Committee concluded by recording their opinion that it is not expedient to depend upon any single line or system, in the hands of several Governments, and that the establishment of separate lines, entirely or partially independent of the present one through Turkey, is desirable. They therefore recommended that means should be taken to improve the lines connecting the Persian system with Europe, by way of Georgia, and to bring within the Turkish convention the line recently established through Syria, for connecting Alexandria with the main line to India at Diarbekir; that the communication by way of the Persian Gulf should be doubled, either by the laying of a second submarine cable, or by continuing the land line from Gwadel to Bunder Abbas and Ispahan; and that serious consideration should be given to a proposition which had been made for the establishment of a direct communication between Alexandria and Bombay, by way of Aden, on the principle of a line practically under one management and responsibility, between London and India, to be afterwards extended to China and the Australian Colonies.

With regard to the lines in India, the Committee recommended that the Government should sanction the use of the wires of the several railway companies by a public company willing to rent the privilege on equitable terms, or that such an organisation should be made of the various independent companies as would establish unity of system, and bring the lines fairly within the reach of the public.

Negotiations were in progress at the time the Committee made its report, for the construction of the line to which they referred, through Bunder Abbas, Kirman, and Yezd, to Ispahan; and Colonel Goldsmid has since been deputed to Persia to give his assistance in the matter. Sanction has also been given for the erection of a second wire on the existing Persian route. The Indo-European cable is said to be capable of carrying three times the traffic of the year under review, without increasing the cost of management.

Much of the difficulty hitherto found in maintaining the telegraphic communication with British Burmah, through the forests of Arracan, and across the hills, has been overcome; but that which arises from the unhealthy nature of the district will long remain. Telegrams have occasionally reached Rangoon in one hour from Calcutta, and in 48 hours from England, but regularity in the transmission is still wanting.

Early in the year 1866, a scheme was forwarded by the Government of India,

which received the approval of the Home Government, for re-organising the Electric Telegraph Department in India, with a view to improving its efficiency; the increase of salaries amounted to 45,000 *l.* per annum; but it was anticipated by the Director General that it would be more than covered by the augmentation of the traffic, which was annually increasing at the rate of 30 per cent., and might be expected to be further promoted by the revised tariff of charges and amended administration.

Three years' experience of open competitive examinations for the purpose of recruiting the staff of the Telegraph Department in India has shown conclusively that such a plan cannot be relied on; and, on the concurrent recommendation of the Director General of Telegraphs and the professor who conducted the examination in 1866, it was determined, as an experiment, to nominate to the Department a certain number of young men who, after passing a preliminary examination in the subjects comprised in an ordinary liberal education, should be sent, for 6 or 12 months, to such a college as that at Glasgow or the London University, to be trained in the branches of physics directly applicable to electric telegraphy, and then, before being sent to India, should be placed for a few months under a leading telegraph engineer, to learn the practical construction of lines, testing of cables, &c.

CANALS, &c.

The length of the distributing channels of the Ganges Canal was extended during the year 1865-66 by 229 miles, and the gross income was 36 per cent. higher than in 1864-65, and 75 per cent. higher than in 1863-64. This improvement is partly owing to the further development of the system of distributing channels and irrigation, and partly to complete immunity from accident and consequent stoppage; but it arises chiefly from the introduction of enhanced water rates, varying according to the class of crop. These discriminating rates have been sanctioned as a temporary measure; but the desirability has been pointed out of adopting throughout India a system of charging by contract, or, still better, by volume of water, which would obviate the expense to the Government, and the annoyance to the cultivator, which is inseparable from the practice of detailed measurements of land or crops.

Major General Sir Arthur Cotton having taken exception to Major Crofton's scheme for remodelling the Ganges Canal, and urged that a new head below the junction of the Solani with the Ganges should be adopted in preference, a Committee of civil and military engineers, selected in such a manner as to ensure impartiality, was appointed to consider the project; and they came to the conclusion that, with some modifications in detail, Major Crofton's plan should be carried into effect, and that, in addition, a new canal should be constructed from the Jumna below Delhi. Sir Arthur Cotton's plan, they stated, would be much more expensive than the scheme for remodelling the existing canal; but an additional amount of water for irrigation might be thereby obtained, at a cost which would not be so high as to render it impossible to carry out the work with advantage at some future day.

The Government of India have approved both of the scheme for re-modelling the canal and of the construction of the new canal from the Jumna, for which the surveys are to be at once undertaken. There is strong ground for hoping that the re-modelling works can be carried on without any interruption of the irrigation, which is spreading gradually, and obtaining the appreciation and confidence of the people; and the extension of the distributing channels is, therefore, to be proceeded with as rapidly as the wants of the irrigation may seem to require. It is not certain whether a pemanent dam on the Ganges at the head-works above Hurdwar is absolutely necessary; but instructions have been given for at least completing the plans of the work without delay.

The state of the Ganges Canal is reported to be greatly improved, although the supply of water available at the head is short of what was originally expected: still, the canal is able to carry the whole of it without serious injury, and, indeed, so well, that doubts have been felt of the necessity for re-modelling it. The net receipts, *excluding enhancement of land revenue*, have reached 3½ per cent. on the capital outlay; and, with the extension of the irrigation, and greater economy in the use of the water, there seems to be no reason to doubt the ultimate financial success of this great work. If the estimate formed by the Committee respecting the enhanced land revenue be correct, the canal is already paying five per cent. on the capital laid out; but the Government

will not accept any statement of the total income, until the detailed return of increased revenue due to the canal, which is now being prepared by the Revenue Settlement officers, is completed.

Although the distribution channels of the Eastern Jumna Canal are, in consequence of the amalgamation of some minor lines, six miles shorter than in the preceding year, there is an increase of 30 per cent. in the receipts, owing to the increased rates for the water; and the improvement is nearly 68 per cent., when the comparison is made with 1863-64.

The income derived from the Rohilcund canals, on the other hand, has fallen off, a result which is attributable in part to damage done to the works, and partly to the frequent showers of rain in the cold season, which rendered the cultivators independent of artificial irrigation.

In replying to a proposition of the Government of India to raise a loan for the rapid extension of irrigation works, the firm conviction previously expressed by Sir Charles Wood of the advantage of those works, and his fixed determination to prosecute them as rapidly as possible, was referred to by Lord Cranborne, who added that, looking upon such a course of action as of vital importance to the progress of India, he would willingly sanction any well-considered proposals which might tend to promote that object. The only conditions required in regard to the works were, that none should be undertaken till the estimates were thoroughly matured, that there should be a reasonable ground for expecting them to prove remunerative, and that they should be executed with a due regard to economy.

With regard to the question whether such works should be undertaken by the Government or entrusted to a private company, Lord Cranborne informed the Government of India that no general rule could be devised for ever-varying circumstances, and that the proper course would be to decide upon the question of agency, according to the merits of the particular case. If the project appeared likely to be executed more rapidly or more satisfactorily by a company than by the State, a company might be entrusted with it; whereas, if no company equal to the undertaking presented itself, or there were special objections to the intervention of a company in the particular instance, or if the Government had sufficient means readily available, Government agency would naturally be preferred. The great obstacle in the way of employing private agency was the difficulty of fixing the water rent, so as to bear any determinate ratio to the increased fertility conferred upon the land by irrigation; and the best way of overcoming this difficulty would be to abandon any attempt to fix such a ratio, and to proportion the profit to be looked for by the company, and consequently the maximum price chargeable to the cultivators, to the cost of supplying the water, not to the increased return which the cultivator might, by means of the water, contrive to extract from the land.

Subsequently, the Government of India forwarded their budget estimate of expenditure for 1867-68, in which they made provision for an allotment of about 700,000 *l.*, or double the sum spent in the previous year, for irrigation works. Sanction was accordingly given to the raising of a loan for this amount, in the event of the cash balances proving insufficient to defray the charge.

The progress of the East India Irrigation Company in the year 1865-66 was less than had been anticipated, but a great deal of work was done, and in a very satisfactory manner; and the Lieutenant Governor of Bengal, who visited the works in February 1866, was well pleased with the result of his inspection.

As the Company were unable, for want of funds, to avail themselves of the large amount of labour placed at their disposal by the distress arising from the famine, the Government of India granted a loan of 10,000 *l.* to the Company's Agent, as the readiest means of applying the money to the relief of the population.

While the Irrigation Company were hesitating whether or not to undertake the construction of the works projected for the Soane Canal scheme, the Government of India were desired to lose no time in maturing plans for immediate action, in the event of the Company being unable to comply with the terms of their agreement. A proposal was subsequently made by the Agent for the execution of the works within the limit originally laid down in the proposition of Colonel Dickens; but, in so doing, he assumed it as "an undeniable fact," that it was only to this Company that the extension of the scheme could be hereafter committed. This claim on the part of the Company was at once

repudiated by the Government; and the proposal was only accepted on the faith of their intending to act fully up to the spirit of the contract, and to carry out the works with proper speed. Unless, therefore, the detailed plans were submitted by the 1st of October 1867, and a proper staff and funds were provided to admit of the work being carried on at a due rate of speed, the Government would, the agent was informed, consider that the contract had been violated, and would undertake the project by the agency of its own officers. Under no circumstances, it was added, must the Company expect to be aided in the way of loan or credit by the Government.

An application for a guarantee of interest on their outlay was afterwards made by the Company, and was refused, the Government being prepared to execute the work without their agency.

The attention of the Madras Government has been specially called to the wants of the Salem and North Arcot districts, where it is said that great natural resources exist, requiring only a moderate outlay to bring into cultivation large tracts now lying waste, and where an improved system of dams in the river valleys might store much water which now flows away uselessly to the sea.

At the beginning of November 1866, it was determined to depute an officer to report on the systems of irrigation in force in the more important localities in India where it is practised, with the view of submitting for common adoption a general method, which should exhibit financial results and relative economy of working and management, and at the same time be susceptible of application to local circumstances. For this duty selection was made of Colonel Strachey, formerly Secretary to the Government of India in the Public Works Department, and that officer has recently been appointed Inspector General of Irrigation Works throughout India.

With the view of relieving the traffic on the Circular Canal at Calcutta, a project has been sanctioned for continuing and opening into the Hooghly the new canal, which will then become the through channel to the eastward.

Important operations were carried on in 1865-66 in the Upper Indus, by the clearing of the channels and construction of dams to control the current.

The Pyne Kyun Creek Canal, between the Pegu and Sittang rivers, was completed in June 1865, and with the exception of a few days in each month of the dry season, has been navigable during the year.

GENERAL WORKS. The Department of Public Works in Bengal had many impediments to contend with in the year 1865-66. On the one hand, the necessity for repairing the buildings, and still more the embankments, which were damaged by the cyclone of October 1864, was urgent; and, on the other hand, the loss of life and the private demands arising from the destruction of property on that occasion, rendered labour very scarce, while the Bhootan war drew off a large number of skilled officers from the ordinary departmental works. The local funds were, at the same time, seriously diminished by the cessation of the income-tax, one-fourth of the proceeds of which has been, since its institution, devoted to the construction of roads and other works likely to be beneficial to the district in which the money was raised.

The scarcity felt throughout the country, more particularly in Orissa, where, however, it had not then attained the proportions to which it subsequently rose, demanded special attention; and grants of money were made without stint, in order to provide work for the distressed population.

The principal military works undertaken in Bengal during 1865-66 were the enlargement of the cartridge and percussion cap factory at Dumdum, and the remodelling of the gunpowder factory at Ishapore. The dockyard at Kidderpore, to which considerable damage was done by the cyclone, is being entirely remodelled, in order to place it on an efficient footing; but some years must elapse before the buildings will be completed.

Among civil works may be mentioned some important buildings, which are being constructed at the Presidency city; the new High Court and the combined Telegraph and Post Offices are in course of erection, and plans have been approved for an Imperial Museum and for the Calcutta University. Great additions have been made to the Mint, by which its efficiency will be materially increased.

In

In order that no delay might occur in building a new Sailors' Home, which was much needed, the Government granted a site on the Strand Bank, and advanced money for the edifice, on the security of the present building, so that the inmates will not be deprived of its shelter until the new house is ready for their reception.

The residents in the neighbourhood of the maidan, or park, in Calcutta, will derive much benefit from a scheme which has been carried into execution, for draining that spot and lighting it with gas.

The great sea dyke in Southern Hidgellee, which, so far as it had been constructed, proved strong enough to withstand the force of the cyclone, has been completed to a further length of 26 miles; and only six miles now remain to finish the whole work, which will extend for a distance of 55 miles altogether.

The importance of the trunk road through Cuttack, having been recognised by the Government, and the work put in hand in 1865, the progress during the year under review has been very great, owing to the employment thereon of vast numbers of labourers for whom the famine rendered it necessary to provide a subsistence.

In Assam the works on the main road have been much retarded by the natural difficulties attendant on its construction through a deeply-flooded country, as well as by the unhealthiness of the climate and scarcity of labour, much of which has to be imported from a distance.

Hindrances of a similar character have also been experienced on the Ganges and Darjeeling road; but the upper portion has for some time been open for traffic, and it is anticipated that carts will be able to pass throughout the entire length before the rains of 1867.

In the port of Canning, the bank of the Mutlah has for some time been subject to serious injury from erosion; and in April 1866 the railway jetty suddenly gave way, and the other piers sank. A Committee was accordingly appointed to inquire into the matter, and suggest the measures they might deem necessary for the protection of the port. In consequence, however, of the great costliness of the sea wall, the construction of which was recommended by the Committee, application was made to Mr. Leonard, the engineer whose propositions for the improvement of the Hooghly were mentioned in the Report* of last year. The plans of that gentleman are based on a very moderate estimate, and there is reason to hope that these works, which are being carried out by the Port Canning Company, in conjunction with the municipality, will suffice for the preservation of the foreshore.

* Page 43.

In the North-Western Provinces a double-storied barrack has been completed for the artillery at Agra, and progress is being made with the new barracks at Allahabad and Gwalior. The principal civil buildings in course of erection are the public offices at Allahabad, and the memorial church at Cawnpore. A further section of the Agra and Bombay Road has been opened for traffic, and that between Roorkee and Dehra is nearly finished.

The system of executing the works by contract has been introduced in several of the divisions, and, though the success which has attended it appears to be mainly due to the strict supervision of the Government officers, a perseverance in it appears likely to cause more work to be done at less expense than before.

In the Punjab, barracks are about to be erected at Rawul Pindee for two entire regiments of European Infantry, and the concentration of an ordnance magazine and place of refuge has been ordered.

Sanction has been given to an expenditure of about 535,000*l.* for the concentration of the cantonment at Peshawur, the object of the works being to protect it against predatory attacks, to relieve the garrison from irksome guard duty, and to overawe the city.

An outlay of 180,000*l.* has also been approved on the formation of a fortified post at Mooltan, in connexion with the cantonment and railway station.

At Jubbulpore barracks for three companies and a large regimental hospital are completed, and progress is being made with those at Saugor. Steps have been taken for the erection of a new Ordnance Depôt at Kamptee, with a view to the removal thither of the establishments of the old arsenal at Seetabuldee.

The important subject of providing roads in Berar and Central India has especially engaged the attention of the Government, and schemes have been sanctioned for meeting the wants of the country as rapidly as possible, con-

sideration being, in the first instance, given to the means of making the roads fairly passable for carts, by throwing bridges over the minor streams and water-courses which intersect the country.

A project is in preparation for fortifying the port of Rangoon, the defences of which are not at present adequate to protect the town and shipping from vessels armed and constructed on modern principles.

The chief point worth mentioning in connexion with the progress of roads in the Madras Presidency during the year 1865-66, is an outlay of 16,000 *l.* on the passes through the Ghauts in Coimbatore and Malabar, for the conveyance of the coffee crop to the seaboard. Operations are also in progress in the Koondah and Neilgherry Hills, where the number of coffee and chinchona plantations is increasing.

The receipts from the district road fund continue to increase steadily, and the expenditure of the sums thus raised is yearly exercising a most beneficial effect in developing the resources of the country.

The state of the roads in Coorg has received special attention, particularly as regards the preservation and reconstruction of those already in existence, which were unfit to bear the largely increased traffic to which the growing prosperity of the province has given rise.

In the Bombay Presidency sanction has been given to the formation of a very important road from the railway at Belgaum to the coast at Vingorla, the estimated expenditure on which is as much as 114,600*l.* owing to the necessity for numerous bridges over the drainage channels on the Western Ghaut, where the rainfall is remarkably heavy.

The chief outlay upon new roads, in the year under report, took place on that from Dhoolia to Challisgaum in Khandeish, of which about 42 miles was nearly finished, on the road between Gogo and Dhundooka, in Ahmedabad, which is approaching completion, a sum of 20,000 *l.* having been spent in 1865-66, and on the eastern boulevard in the city of Bombay.

The wharf wall at Carwar has been completed to a length of 897 feet, and affords more than ample accommodation for the present wants of the port; but, with all its facilities for landing and shipping goods, Carwar does not yet show any signs of commercial activity, Coompta being still adhered to by the native merchants. Further work on the wharf wall has been stopped, as it will be time enough when the trade is drawn to the spot, to finish it, as originally intended, to the length of 1,800 feet.

The light on the Oyster Rock at Carwar was exhibited, for the first time, on the 26th of March 1866; it is placed 213 feet above the level of the sea, and should be visible at a distance of 30 miles. Other lighthouses were erected during 1865-66 at Cocanada, in the Godavery district, and on one of the Coco Islands (the light of which was exhibited for the first time on the 15th of February 1867); and lighthouses are also being constructed on the Baragway Flat, in the Gulf of Martaban, and on Oyster Reef, near the Port of Akyab.

The sum granted for Public Works in the Budget Estimate for 1865-66 was 5,888,640 *l.*, and that for 1866-67 is 6,874,800 *l.* Of the latter amount, 2,000,000 *l.* was reserved for military buildings, chiefly new barracks; 762,000 *l.* is devoted to civil buildings; and upwards of two millions and a quarter is to be laid out on agricultural works, communications, and other public improvements. Of the remainder, about 1,100,000 *l.* is spent on establishment, tools, and plant, and 414,000 *l.* is required for the guaranteed interest to the Railway and Irrigation Companies.

MINES. It has been determined at once to throw open the coal fields of Assam to private enterprise, and to grant mining leases on the following conditions: upon receipt of an application, the fact will be advertised for a month, and, if any other be made within that time, the lease will be put up to sale by public auction; no grant is to exceed in area one square mile; all grants will at first be rent-free, but, on completion of the survey and demarcation, an annual surface rent of 9 *d.* an acre will be levied; and, if *bonâ fide* mining operations are not commenced within three years, or if they at any time cease for a period of five years, the right in the land will be forfeited.

The grant of a perpetual lease of five plots of land in the Sonthal Pergunnahs, which contain coal, has been authorised on the same terms.

In the Central Provinces, coal has been found in 11 different places in the Pench Valley; with a thickness of good coal in the seam varying from 3 to 12½ feet.

feet. The angle of dip is everywhere very small, from 3 to 10 degrees; and the quality and depth of most of the seams are supposed to be constant, at all events over considerable areas.

The Burwai Iron Works, in Nimar, were advertised for sale, but no offers were received; and they will be made over, at a fair valuation, to Maharajah Holkar, with the territory north of the Nerbudda, which is about to be transferred to his Highness.

IV. Legislation.

Several Acts of considerable importance to the commercial community have been passed during the year 1866, by the Council of the Governor General for making Laws and Regulations. Act X., for the incorporation, regulation, and winding-up of trading companies and other associations, renders to joint-stock companies trading in India the same service which was afforded to such companies in England by the Companies Act of 1862. Following the English statute, it has collected into one Act the law relating to Indian joint-stock companies, the members of which are thus enabled to ascertain their rights and liabilities at all stages of their existence.

An Act to amend the law of partnership in India (No. XV.) was also based on a recent English statute, and was intended to have the advantages of the French system of commanditarian partnership, without being hampered with the minuteness of the rules on which that system is founded. It provides that the loan of money to a person engaged in trade, on a written contract that the lender shall receive a rate of interest varying with the profits, or a share of the profits of the trade, shall not, of itself, constitute the lender a partner in the undertaking. Thus, without discrediting the general principle of unlimited liability between partners, it enables a merchant who wishes to retire from the business, leaving a certain sum of money in the undertaking, to do so without risking more than the amount which he is prepared to stake, instead of rendering his whole property dependent on the discretion of a partner whom he may never have seen. This measure will, it is hoped, counteract the tendency which existed, although mitigated by private arrangements, for a retiring partner to withdraw his capital from the business, while, the public being ignorant of the fact, the credit and operations of the firm remained as before, a tendency which was especially dangerous in a country like India, where a change of partners is extraordinarily frequent.

Another instance of the Indian law following the course of English legislation occurred in the passing of Act V. of 1866, to provide a summary procedure on bills of exchange, and amend in certain respects the commercial law of British India. The object of the first part of this measure is to carry out to the full the theory of negotiable instruments, and to render their transfer as easy and effectual as that of current coin. It allows the holder of a bill of exchange or promissory note to commence a suit in the High Court for the recovery of the money within six months of the time when it becomes due, and prohibits the defendant from putting in an appearance unless, within seven days of the summons, he obtain leave from the judge to do so, such permission being only granted on his paying into court the amount mentioned in the summons, or on an affidavit disclosing a defence on the merits of the case. The defendant will thus be forced to swear to the nature of his real defence; and the burden of proving the dishonour of the bill will not fall upon the plaintiff, unless the defendant's case is that no dishonour has taken place.

Besides this, the chief provisions of this Act are, that the consideration for a guarantee is not necessarily to be shown in writing; that a guarantee to or for a firm is to cease upon a change in the firm, unless otherwise provided; that the acceptance of a bill, whether inland or foreign, shall be in writing; that all bills drawn and payable in British India, shall be deemed inland bills, whether drawn on another Presidency or not; and that protest of a bill by a notary public, in any part of India, shall be *primâ facie* evidence that the bill has been dishonoured.

An Act, No. XXI. of 1866, legalises, under certain circumstances, the dissolution of marriages of Native converts to Christianity, who may be deserted or repudiated, on religious grounds, by their wives or husbands. In the case of such

such a desertion for the space of six months, a suit may be brought for conjugal society; the respondent will be interrogated by the Judge, either privately or publicly (and, if necessary, by means of Commissioners who may be females); and, if the true reason for the desertion appears to be the petitioner's change of religion, the case will be adjourned for a year, in the course of which the husband and wife will have an interview, in the presence of persons selected by the Judge, for the purpose of its being ascertained whether the respondent voluntarily persists in the refusal. At the expiration of the twelvemonth, the respondent will be again interrogated by the Judge or Commissioners, and, on the refusal to cohabit being repeated, the Judge will decree the dissolution of the marriage. This law does not apply to Mahometans whose marriage is *ipso facto* cancelled by conversion to another religion; and an exception is also made in the case of converts to the Church of Rome, in order that the law may not interfere with the proceedings of that Church under its own discipline.

The Act of 1860, regulating the sale and possession of arms and ammunition, being about to expire, a further Act (No. VI. of 1866) was passed to continue its provisions. The testimony is unanimous that no European and no Native of approved loyalty has been disarmed under this law; and it has been found to have had an exceedingly good effect, not merely in preventing outbreaks, but in softening the manners and advancing the civilisation of the barbarous tribes who had previously been in the practice of habitually carrying arms. As in some districts there is reason to fear that the number of wild animals has increased in consequence of this law, a slight change has been made in the new Act, by which the local officers are empowered to grant licenses dependent on certain conditions, which will enable them to ascertain that a proper use is made of the arms by those who are authorised to carry them.

The law relating to the management of the Post Office having in some respects become inapplicable to the present state of affairs, an Act (No. XIV.) was passed, embodying all the alterations which had become desirable; and some slight changes were effected in the rates of postage on the heavier letters and parcels.

In consequence of an agreement entered into between the Government and the Bengal Asiatic Society, an Act (No. XVII.) was passed, providing for the establishment, under the management of trustees, of a public museum at Calcutta, in a suitable building to be erected by the Government, which should be in part devoted to collections illustrative of Indian archæology and natural history and other objects of interest, and in part to the accommodation of the Geological Survey of India, and of the Asiatic Society, with their library, manuscripts, coins, &c.

The Royal Commission appointed to prepare a body of substantive law for India have made a second report, embracing the questions of contracts, sale of moveable property, indemnity and guarantee, bailment, agency, and partnership; and it has been forwarded to the Government of India, with a view to the enactment of a law founded upon it.

Acts for the better regulation of the police in the town and suburbs of Calcutta were passed by the Lieutenant Governor's Council, and a further Act was passed to remedy certain defects in the law relating to the municipality of Calcutta.

An important Act (No. X. of 1866) has been passed by the local council, appointing trustees to carry out the improvements in the port of Calcutta which are urgently required.

In Madras an Act (No. VIII. of 1865), which was passed to consolidate and improve the laws defining the process to be taken for the recovery of rent, while simplifying the procedure to be followed in such cases, has provided a remedy for two important defects which existed in the old law; it gives to all proprietors of land, who have taken a written agreement for their rent, the right to recover arrears from a defaulting tenant by means of a summary power of distress; and it abolishes the old rule, which debarred from the privilege of distraining any landlord who did not pay tax to the Government, a measure which was found to operate harshly in the case of those who had received free gifts of land from the Crown, or who had purchased the redemption of the land tax.

Two Acts were passed in the year 1865, giving municipal powers to Commissioners in the various towns of the Madras Presidency, the first (No. IX.) being applicable to the City of Madras, and the second (No. X.) to any other town in the Presidency to which it might be thought right to extend its provisions.

An Act, No. II. of 1866, for the prevention of the spread of disease among cattle in the Madras Presidency, was rendered necessary by the heavy losses inflicted upon the country by the murrain, and the extraordinary apathy and carelessness of the agricultural community in the matter of contagion.

Act III. of 1866, for the levy of a district road cess, enables the Government to raise funds for the construction and repair of minor roads, by local taxes imposed upon the owners and occupants of land in the vicinity. This measure was considered necessary, as the increasing demands on the general revenues make it difficult for the Government to do more than complete and maintain the chief lines of communication.

By a recent Act, No. VI. of 1866, the Madras Bank is authorised to increase its capital from 600,000 *l.* to 1,200,000 *l.*, and also to establish agencies or branches beyond the limits of British India, so that it is no longer precluded from transacting business in the Native States of India, at Pondicherry, or in Ceylon.

In consequence of the prevalence of gambling in Bombay, the Council for Laws in that Presidency has passed an Act (No. III. of 1866), prohibiting the keeping of a common gaming-house in any town of 5,000 inhabitants, or within three miles of a railway station. Gaming in the public streets is also forbidden.

Another Act of the Bombay Council, No. XII. of 1866, defined the powers of the Courts of Civil and Criminal Judicature in Sind, and substituted for the civil courts previously existing in that province, courts similar to those in the Regulation Provinces of the Presidency.

V.—Judicature and Police.

In some of the districts of Lower Bengal, it is satisfactory to find that there Bei
nas been a falling off in the number of appeals under the Rent Act (X.) of 1859, in consequence of the more settled relations subsisting between the indigo planters and their tenants; and this decrease of their appellate work has enabled the judges to devote a greater portion of their time to the important duty of inspecting and supervising their subordinate courts.

The cost of the Civil Courts in Bengal was less by upwards of 12,000 *l.* than the amount of stamp fees received in them.

In the Calcutta Court of Small Causes there was a surplus of receipts over expenditure, in the year 1865-66, amounting to 8,800 *l.*; while those in the Mofussil showed a net charge of 8,654 *l.*, after deducting the value of the institution fees.

The registration system was in force for the entire year, and the fees exceeded the disbursements by 9,912 *l.* The establishments were carefully revised, and the receipts continued steadily to increase, but in May 1866 a new code of rules was passed, with a considerably reduced schedule of fees, making registration as easy and cheap as possible. It remains to be seen what will be the financial effect of this measure, but it is hoped that the people will largely resort to registration henceforward.

The crimes of theft and dacoity showed a considerable increase during the year, in consequence of the scarcity prevailing in several districts.

The police force of each circle has been redistributed in such a manner as to materially improve the usefulness of the force, while ultimately leading to a reduction of expenditure. The salaries of the lower grades have been increased, while the number of men has been diminished. The service is now in a very fair state of efficiency, well drilled, well equipped, and fully armed in those frontier posts where arms are necessary. The majority of the inferior officers can read and write, and it is contemplated to establish schools for giving a better education to the constables and recruits. There is an average of one policeman to eight square miles of the country, or to 1,513 of the population.

The question of relieving the Imperial revenues of all charges on account of

municipal police was taken into consideration; and, after much discussion, it was determined that, from the 1st of May 1866, the Calcutta Municipality should take the entire charge of the town police, an annual sum of 4,000 *l.*, however, being paid by the Government as taxes on the buildings occupied by its officers. A sum of 10,000 *l.* was also placed at the disposal of the municipality for public improvements.

Rules have been drawn up for regulating in the Bengal Presidency the grant of pensions and gratuities to men of the police, who, by position and low salary, are ineligible for the benefit of the uncovenanted service pension rules.

It having been found that in Cuttack an impression prevailed that the landholders and their agents had, under the new code of civil procedure, been exempted from their responsibility in regard to reporting the occurrence of crimes in their immediate neighbourhood, a paper was prepared by the Legal Remembrancer, and circulated to all parties concerned, showing what are the duties of the landholder and his agent or representative, and of the village watchman, pointing out the punishments prescribed by the Penal Code for default, and intimating that the law would, in future, be strictly enforced.

The cost of maintaining the prisoners in gaol has increased very largely, in consequence of the unusually high price of food, and of the revision of the establishment.

It being found that the number of the European, American, and Eurasian short-term prisoners in the Presidency gaol had considerably increased, and that men of that class were in the habit of committing petty offences, in order to be sent to the prison, which to them was a house of refuge and good living, a scale of diet has been introduced experimentally, which, while fully sufficient to support life, is not such as to tempt men to commit crime in order to procure it.

NORTH WESTERN PROVINCES.

A careful inquiry has been instituted by the Sudder Court of the North Western Provinces into the character for integrity of the subordinate judicial agency, and the result has been generally favourable. Measures have been taken to break up local and family cliques among the ministerial establishments of the civil courts; and, as already mentioned, the pay of the native judges has been raised, with the view of increasing the efficiency of this class of officers.

The new system of registering assurances has worked very well in the North Western Provinces since its introduction; and it is found to diminish the amount of work which falls upon the judicial officers, as well as to facilitate its execution.

The statistics of crime show a general increase of reported offences, more particularly those of a heinous character; the scarcity and consequent high price of grain, and the prevalence of gambling (for the punishment of which an Act has lately been passed by the Governor General's Council), are believed to have contributed to the increase, while the appointment of honorary magistrates throughout the country has, no doubt, added to the number of minor offences brought to trial. It is gratifying to find that a generally favourable opinion in regard to the growing efficiency of these unpaid officers is entertained by the magistrates, and that their courts appear to possess the confidence of the people.

A notorious dacoit named Lulloo Sing, whose band had for 12 years committed outrages, principally directed against the Rajah of Dyah, was at length, in October 1865, captured by the Allahabad police, with the assistance of the Maharajah of Rewah; and, being placed upon his trial, he was convicted and executed. Several members of the gang have also been apprehended, and it is believed to have been thoroughly broken up.

Although the low typhoid fever, which was so fatal in several gaols in 1864, has been as prevalent as in former years among the free population of many districts, only one gaol has suffered from it during the past year, and in that instance it was checked before it had spread to any great extent. This immunity from fever is chiefly attributable to the rigid enforcement of the quarantine system; but the general health of the prisoners has very much improved, owing to the attention bestowed upon the subjects of ventilation and overcrowding, and the general sanitary arrangements of the buildings.

An attempt has been made, with but partial success, to obtain statistics regarding

regarding the conduct of the time-expired convicts; out of upwards of 40,000 released since 1860, whose subsequent course of life has been ascertained, more than 55 per cent. returned to useful employment, and only $2\frac{1}{2}$ per cent. have been again imprisoned.

In the Civil Courts of Oude there has been a large increase in the number of suits "decreed by confession," and there seems reason to think that this arises from a tendency on the part of creditors to bring needless suits at the expense of honest debtors, with the object of obtaining increased security for themselves. It is hoped that, by a judicious use of their discretion to award costs, the Courts may be able to check a class of litigation which is a great waste of their time, and only adds to the burden of an honest debtor. The costs on suits for small sums are high, but the great increase in the petty litigation shows that they are not so heavy as to deter those who wish to come forward. OUDE.

Trials by jury were held in 17 cases in the Court of the Civil Judge of Lucknow, and they worked unexceptionably well, the verdict being unanimous, and accepted by the judge, in every instance. Small Cause Courts have been established at Lucknow and Fyzabad.

Measures have been taken for improving the condition of the rural police, who were discontented in consequence of the smallness and irregularity of their pay, and for enforcing the obligations into which the head men of the villages have entered.

Dacoities have greatly decreased, especially in Lucknow, where it is believed that the gangs of robbers which formerly existed have been quite broken up.

The education of the police force shows satisfactory progress, and there is no longer any occasion to obtain outsiders to fill posts in which a certain amount of knowledge is indispensable.

The health of the prisoners in gaol was not good during the year; the sickness occurred chiefly at Seetapore and Sultanpore, where no special cause has been assigned, and at Lucknow, where the mortality was attributed to overcrowding, and to the omission to recognize and take precautions against the contagious character of the fever which prevailed.

In the Punjab the number of suits against parents for breach of promise of marriage or betrothal continues to increase, as the growing prosperity of the peasantry raises up rival suitors prepared to outbid the first, and a contract originally entered into for a pecuniary consideration is readily broken for a similar object. PUNJAB.

With the view of securing a fair acquaintance with civil, criminal, and revenue law, on the part of the subordinate portion of the Native judicial officers, rules have been issued requiring them, on appointment, to pass an examination in those subjects.

The Act which was mentioned in the last year's Report,* for establishing a chief Court of Judicature in the Punjab, came into force at the beginning of 1866, and the Court was opened on the 3rd of March. * Page 50.

The Native magisterial agency has been considerably increased; and some of the European forest officers have been invested with limited powers, to enable them to dispose summarily of petty cases of mischief to trees, and breaches of the peace among their establishment.

Trial by jury has not yet been introduced into the Punjab; but the class of assessors is improving in efficiency and usefulness, and in only 19 out of 222 cases did the Sessions Judge differ from the opinion of the majority.

While offences against property are comparatively low in number in the Punjab, murders are very frequent, considering the amount of the population. A large portion of these occur in districts bordering on the north-west frontier, where the Mahometan races on both sides of the border are notoriously addicted to revenge, and the people, from the necessities of frontier defence, are allowed to retain their arms, while escape from justice is easy, with an independent territory close at hand, and the sympathies of the people largely in favour of the criminals.

The less heinous offences against property show the natural tendency to increase which must occur where wealth on the one hand and prices on the other are rising, while cash and jewels are still hoarded within mud walls or

locked in boxes which the simplest key will open, goods are carelessly stored in insecure warehouses, and large herds of cattle, owing to the demand for labour, are entrusted to the care of children instead of able-bodied men.

In the year under report, three gangs of dacoits, who for the past four years have been infesting the districts between the Jumna and the Sutlej, were hunted out and nearly annihilated.

To prevent the possibility of overcrowding, it has been determined to construct five new gaols; the dietary, clothing, and bedding of the prisoners have all been improved; raised berths are being constructed; and attention is paid to personal cleanliness, as well as to the conservancy arrangements in the prisons; while regulations have been framed for quarantine on admission, and for guarding against the spread of any epidemic.

CENTRAL PROVINCES.

The civil litigation of the Central Provinces has increased considerably, more especially in the districts which have hitherto been comparatively backward and uncivilized.

The number of criminal cases also is higher than in the previous year, the difference being chiefly in minor offences. This is partly attributable to greater strictness in enforcing the rules for the maintenance of the public health, and in prosecuting those who infringe the stamp and excise laws; the rise of prices has probably caused some distress, and consequent temptation to commit offences against property; and the facilities given to complainants operate to some extent in encouraging aggrieved persons to resort to the criminal courts.

Heinous crimes, on the other hand, show a steady decrease, owing, in a great measure, to the operations of the special Dacoity Department, the duty of which consists in hunting out and bringing to justice persons who make their living by gang robbery. Though there is reason to believe that there are no longer in these districts any people who earn their livelihood by means of open violence, the tribes who formerly did so remain, and would return to their old practices if opportunity offered.

There are 60 honorary magistrates in the Central Provinces, who disposed of more than one-fifth of the criminal trials during the year. Their work, as a general rule, is done extremely well.

The system of rewarding the prisoners for good conduct in gaol is in full working order, and has already resulted in their improved behaviour. By employing them as warders and overseers, it has been found possible to reduce the cost of the contingent guard.

HYDERABAD ASSIGNED DISTRICTS.

The establishment of the four new Civil Courts in the Hyderabad Assigned Districts, which was mentioned in the Report of 1864-65,* was eminently successful in relieving the over-worked revenue officers of the two larger and more populous districts from the judicial arrears with which their Courts were burthened: and one result of thus transferring to the four Judicial extra Assistant Commissioners the petty litigation which was formerly decided by the 10 tehsildars has been to reduce this class of suits, as many of the people, not being in such close proximity to a civil court as formerly, prefer to settle their disputes among themselves, rather than go to law. In the Superior Courts the litigation has increased.

* Page 52.

The amount of violent crime has been very greatly reduced, in consequence of the re-organization of the police, the measures taken against the professional plunderers who flocked into Berar from the north, the introduction of the Arms Act, and the redistribution of the districts. In some cases the robbers come a long distance in search of plunder, and succeed in escaping, owing to the rocky nature of the soil, which gives little indication of the track taken in their flight. Many of the so-called dacoities are, however, of a very trivial nature, persons returning from the village markets with their week's supply of provisions being stopped and plundered by small parties.

Not a single robbery during the year has been traced to the Rahtores, who gave so much trouble in former years, and much assistance has been received from one of their most notorious leaders, who, at the end of 1864, was appointed an inspector of police, and whose influence has been of great service in discouraging his class from the commission of crime.

The establishment of camel riders, for the conveyance of the coin of merchants,

chants, has been found most successful, and more than 380,000 *l.* was escorted in the year 1865 in perfect safety.

A large number of the police have been dismissed for misconduct, as it was found indispensable to weed the force of men who were not only useless, but mischievous.

From June to October 1865, the prisoners in the gaol at Akolah suffered severely from scurvy, which was prevalent in the district. The other gaols were entirely free from epidemic.

British Burmah.

The administration of criminal justice in British Burmah is in a satisfactory state, and the rules of procedure and evidence are, generally speaking, carefully observed, while the results of appeals and commitments to the Sessions courts testify to the sound character of the findings and sentences.

The crime of dacoity, or gang robbery, is gradually diminishing; but, with a frontier line of nearly a thousand miles of foreign territory, consisting chiefly of hilly and wooded country, inhabited by fierce predatory tribes, or by poor people who long for the richer homesteads within British territory, the difficulty of eradicating the evil is very great. Within the last year, one well-known leader was killed while resisting the police, and another was captured and executed, and their gangs have been dispersed. Active measures have been taken by the Burmese Government to restrain bands of robbers from entering British territory, but the Siamese Government has great difficulty in making its authority felt on the border.

The health of the prisoners in gaol has not been so good as in 1864. The mortality chiefly occurred among those who had been transported from India, some of whom were of great age, while for others the climate was unsuitable. Since the close of the year, however, there has been a great improvement in the prisoners' health. The system has been introduced of promoting them, for good conduct, to the office of warder, and, if they render faithful service in that capacity, remitting part of their original sentence.

Madras.

The jury system, which has been in operation in Madras for four years, and has been introduced into seven districts, appears, on the whole, to have worked favourably; but the success attained is chiefly attributable to the careful selection of the class of offences to which it is applied. It is not proposed to extend it to other districts at present.

European vagrancy, though a less prominent evil at Madras than in the other Presidency towns, exhibits a tendency to increase. Persons who have been employed on plantations and railway or irrigation works, and been dismissed for drunkenness or other causes, discharged or runaway seamen of indifferent character, and men who come over with horses from Australia, all remain without employment, for there is no mere manual labour for Europeans in India. Thus they are driven to beg, and their conduct and appearance cast discredit on the English name.

Towards the close of the year under review, two outbreaks occurred among the Hill tribes. In Vizagapatam, the Sowrahs, a savage and truculent race, attacked a party of police, and drove them off; but a stronger force was soon afterwards moved up, and a station established in a central spot. In Ganjam, a more serious rising originated in the Kuttaya country on the 13th of November 1865, and assumed the form of an extended insurrection, involving 380 villages, which was not quelled till the 5th of January, and then not without a considerable loss of life. A few weeks later, a further rising occurred in another part of the Ganjam Hills, but it was promptly suppressed by the police.

To prevent a recurrence of these murderous outbreaks, it has been arranged that the Assistant Agent and Assistant Superintendent of Police shall reside in the Hill tracts during a considerable part of every year, and the police force has been strengthened.

The unchecked gambling which prevails in almost every town of the Presidency is a serious evil, a return furnished by the police showing 1,015 notorious and open gambling-houses.

The new district gaol at Vizagapatam is nearly finished, and the two central gaols at Coimbatore and Rajahmundry have been so far completed that about 1,000 prisoners have been placed in them.

BOMBAY.

In the Bombay Presidency, as in other parts of India, the dearness of all articles of food proved a great incentive to theft among the poorer orders. As regards crimes of a serious nature, there was a decrease of nearly one-fourth in the number of murders in the Southern Division, while the number of gang robberies was more than doubled. This is mainly attributable to the outrages of the Kolees in the western villages of the Poona district; but the efficient measures adopted by the Superintendent of Police soon resulted in the capture of the leaders, and the suppression of the gangs which had been a source of much annoyance to the peaceable inhabitants.

The cost of the prisoners has increased in consequence of the higher prices of food. The proceeds of their labour are formed into a fund for the improvement of the buildings.

The mortality during the year 1865-66 was exceptionally high, owing to th prevalence in three of the gaols of a low type of fever (the deaths from which alone exceeded the total number of deaths in the previous year), and also of diarrhœa, which was very fatal. A modified diet table has been introduced, which is calculated to promote the health of the prisoners. The gaol establishments have been revised, and considerable progress made towards the promotion of a more sound system of management.

In order to meet the wants of Sind, instructions have been given for the erection of a central gaol at Hydrabad.

VI. EDUCATION.

IN the course of the year 1865-66, the number of colleges and schools under the direct management of the Bengal Government, or receiving aid from the public revenues, increased by 290, and the addition to the number of scholars was 10,734. This progress, however, is not so rapid as that which took place in former years, and the difference is attributed to the ravages of disease in Central Bengal, and the scarcity which was felt towards the close of the year throughout the Lower Provinces.

The Educational Department has been reorganised, and a scale of salaries fixed which, it is hoped, will be sufficient to enable the Government to procure the services of competent men from the English Universities.

The progress of female education in the North Western Provinces continues to be satisfactory; but the movement is yet in its infancy, and requires delicate handling. As in the boys' schools, the great want is that of efficient teachers; and efforts are being made to create a class of trustworthy and capable schoolmistresses.

Native booksellers are beginning to obtain educational works from the Government depôt, for sale to the public; and one at Benares is reported to have disposed of upwards of 400 *l.* worth during the year, a satisfactory evidence that they are becoming generally acceptable to the people.

Many of the female schools recently taken under the patronage of the Government in the Punjab are, no doubt, nothing more than the infant schools which have existed from time immemorial, for the purpose of conveying some little religious instruction; but still, the growing desire of the Natives to have them visited by the Government officers is encouraging, and the great object of removing prejudices seems in the course of being gradually accomplished.

A proposition has been made by some of the Native community of Lahore, under the auspices of the Principal of the College, to found a university for the promotion of Oriental learning; and the precise form which the institution shall take is under consideration.

The censorship over the Native Press which was established in 1857, has been withdrawn, and the number of presses and vernacular periodicals has, in consequence, considerably increased.

The number of schools in the Central Provinces has risen during the year from 1,185 to 1,441, and that of the pupils from 34,400 to 46,738. The cost of educating each scholar was about 14 *s.* a year.

In the Hyderabad Assigned Districts also there has been an increase in the number of schools; and a Director of Public Instruction has been recently appointed for Berar.

The nomination of a similar officer to superintend the arrangements for promoting

moting education in British Burmah, was mentioned in the Report* of last year. After a period of two years, it will be considered whether the success of the measure has been sufficient to warrant the continuance of the appointment. * Page 60.

In the plains of Toungoo, there are several families of Karen mountaineers, to whose education, religious, moral, and social, the Rev. Dr. and Mrs. Mason have for many years devoted themselves. The colony now numbers 223 persons, who have settled down to agricultural pursuits.

In the Madras Presidency, the number of the private schools under Government inspection in 1865-66 was 278 more than in the preceding year, and the number of pupils increased by 5,936.

In 1863, an Act was passed, to enable any town or village in which the majority of the inhabitants desire it, to appoint Commissioners and levy rates for the maintenance of schools. The chief difficulty in carrying this measure into effect consists in the want of competent School Commissioners; and the introduction of the Act has been prohibited in places where such persons are not available for the duty, or where the request of the people for it is not entirely voluntary. In Malabar and Canara, into which districts it has already been introduced, it appears likely to work with success.

The revised grant-in-aid rules have led to a considerable improvement in many of the schools previously existing, but as yet not much has been done in the establishment of additional schools. A fair trial is being given to the two systems of making payments in aid of the salaries of certificated teachers, and of granting assistance according to the results of periodical examinations of the pupils.

In Coorg, where an attempt to establish a school at Mercara met with the most determined opposition 10 years ago, the feeling is now one of universal appreciation of the benefits conferred by education; and the principal men amongst the Coorgs have readily contributed from their private means to the endowment of the Central School.

In the Island of Bombay, a Diocesan Board of Education has been formed, for the purpose of establishing schools intended chiefly for the children of Protestant Christians; but, in order to enlarge the sphere of the Society's operations, it has been decided that the principles of the Church of England shall not be enforced in the case of the children of Nonconformists.

VII. Emigration.

Emigration from the Bengal Presidency has largely increased within the last year, the number of emigrants in 1864-65 being 13,485, and that in 1865-66, 19,963. This rise has occurred entirely among those dispatched to Mauritius, while emigration to Réunion and Natal has for the present ceased altogether. The proportion of female emigrants has been unusually large in consequence of the scarcity of food in the recruiting districts, which compelled whole families to seek their livelihood elsewhere. Unfortunately, the greater number of women led to a corresponding increase in the number of infants, to which, as well as to the prevalence of disease in Lower Bengal, is due the increased rate of mortality on board the ships:—among the emigrants to Mauritius the death rate was 3·26 per cent., while in the vessels which conveyed those destined for the West Indies it was little short of eight per cent.

The number of return emigrants was 3,747, as compared with 2,882 in the previous year; and their savings averaged about 20 *l.* a head in the case of those who came back from Mauritius, and 28 *l.* among those from British Guiana and Trinidad.

In estimating the rate of mortality during the voyage, no account has been taken of a lamentable loss of life which occurred in the wreck of the "Eagle Speed," near the mouth of the River Mutlah, in August 1865, when, out of 487 emigrants who started from Port Canning, no less than 262 perished. The pilot was tried by a Marine Court, and, being found guilty of want of skill in allowing the vessel to ground, and of neglect in omitting to do his utmost for the preservation of the lives of the passengers, was dismissed from the service. An inquiry which was held respecting the conduct of the officers and crew showed

showed that, either from illness or debauchery, they were in an inefficient state; and, as it was found impossible to institute criminal proceedings against them, the Board of Trade was requested to withdraw their certificates from the captain, and the first and second officers; but it was subsequently found that this power had been taken from that Board, and vested in the Court which conducted the inquiry, and which should have been the High Court of Calcutta—a misapprehension of the law, in consequence of which it was found impossible to punish those officers; the surgeon, who acquiesced too readily in the abandonment of the ship, was declared unfit for employment in charge of emigrants; and the captain of the tug accompanying the "Eagle Speed," who had refused to anchor near the unfortunate vessel, was punished in the only way practicable, by the withdrawal of his pilot's license. A rule was at the same time passed, making it incumbent upon the emigration agent and protector to ascertain that the officers and crew of every emigrant vessel are in an efficient condition before the passengers are allowed to embark; the general order allowing emigration from the Mutlah was withdrawn, and measures were taken for improving the buoying and lighting of the channel.

An inquiry having been held by the Sanitary Commission into the causes of the excessive mortality which occurred on board the emigrant ships to British Guiana in 1864-65, they came to the conclusion that it was due to an infectious fever being carried on board by the coolies, while the Medical Inspector of Emigrants considered the disease to have been a genuine attack of typhus, caused by overcrowding. Both parties, however, concurred in the practical measures necessary to avoid the recurrence of such a disaster, the chief points being a return to the minimum space of 12 superficial feet for each adult (which had in 1864 been reduced to 10 feet), the absolute limit of the number of emigrants dispatched in any vessel, and the provision that no coolie should be embarked until he had been at least 30 days in depôt.

In order to avoid the injurious effects of the coolies leading an idle life while in the depôt, a rule has been passed enabling the protector to exact work from them of a light and suitable character, for which they are allowed pay at the rate of one and a-half pice, or three-sixteenths of a penny, per hour. The agents are thus enabled to keep the depôts clean, and the measure in a two-fold way promotes the health of the emigrants.

The arrangements for the transport of labourers from Lower Bengal to Assam and the adjoining district have attracted the special attention of the Government. The regulations on the subject are contained in two Acts passed by the Bengal Council in 1863 and 1865; and the system has worked very well so far as regards the reception of the coolies by the Superintendent of Labour Transport, and their dispatch to Assam. On board the steamers or flats, however, engaged in the conveyance of the labourers, the established rules were disregarded in no less than five instances within six months, and a very serious loss of life ensued. On their landing, also, no adequate provision was made to enable them to reach the plantations, and they were consequently exposed to great misery. A full inquiry has been directed into the whole subject, in order to ascertain whether sufficient securities exist for the protection of the coolies, both on their way to Assam and in the plantations.

On the latter point, a very serious infraction of the law occurred in the gardens of the Assam Tea Company at Cherrajoolie, where immigrant labourers were flogged under circumstances of great barbarity. The instance was declared, both by the Agent of the Assam Tea Company and the Secretary of the Landholders' and Commercial Association, to be quite exceptional, and contrary to the express orders of the directors of such estates; but a searching inquiry has been ordered with the view of discovering whether similar occurrences have taken place on other plantations, and of bringing the perpetrators to condign punishment in any case where the offence may have been committed. An additional Assistant Commissioner has also been appointed in Lower Assam, to discharge the duties of protector of labourers in that division.

From Madras, 5,192 emigrants were dispatched to British Colonies in 1865-66, or 419 more than were sent in the previous year. Out of nearly 4,000 who proceeded to Mauritius, only 15 died on the passage. The depôts were less healthy than usual, as very many of those who came to be registered were half starved, and, consequently, more liable to disease. The French agencies obtained 2,155 recruits for their Colonies during the year.

VIII. Agriculture.

In six divisions of the Lower Provinces it was considered undesirable, owing to the scarcity, to hold agricultural shows; but in Assam, Dacca, Chota Nagpore, and Chittagong, exhibitions were opened with more or less success, and, though their effect may have been confined within narrow limits, the interest which they excited fully repaid the small expenditure incurred. That which was held at Mymensing in Dacca, after paying all its expenses, realised a surplus of upwards of 500 *l.*, which it is intended to appropriate to the establishment of a model farm; and the exhibition at Debrooghur, in Assam, was attended by many of the wild tribes on the north-east frontier, and it is to be hoped that their visit may be not without profit to themselves and their fellow clansmen. Agricultural Exhibitions, &c.

At Alipore, in Buxa, one of the newly annexed districts which were taken from the Government of Bhootan in the previous year, an exhibition was held in June 1865, which proved most useful as a means of ascertaining the capabilities of the country; among the articles shown were cotton and silk, both raw and manufactured, numerous timber and medicinal woods, lac, india-rubber, castor oil, pottery, and an immense variety of kinds of rice.

In the North Western Provinces, agricultural exhibitions were held at Allahabad, Agra, and Bareilly, and district shows at Mynpoorie, Etah, Futtehghur, and Mirzapore.

The annual fair at Khyrabad, in Oude, which had been intermitted in the previous year on account of the Lucknow exhibition, was again held in 1865-66, at the request of the talookdars of the district, who charged themselves with the expenses.

A sum of upwards of 10,000 *l.*, of which the Government gave 2,000 *l.*, was collected in 1865, in the Central Provinces, for an exhibition of products and manufactures to be held at Nagpore, and on the 26th of December it was opened. About 30,000 people came to see it, the machinery and implements proving the greatest attraction to the native visitors; and, in order that the impression made upon their minds may not pass away without effecting some permanent improvement, it has been decided to hold another exhibition at Jubbulpore, in the course of 1867.

The native rice plant in British Burmah gives an abundant yield, with very little trouble; and it is doubtful whether any improved system of tillage would materially increase the crop or benefit the soil. The Agricultural Society is, however, importing Carolina and Java seed paddy; and, if the cultivators can be induced to give these varieties of the plant the care and labour required to raise them successfully, the value of the produce for foreign markets will be double that of the indigenous grain.

In the Presidency of Madras, agricultural exhibitions were held in the districts of Nellore, Bellary, and Tinnevelly. That at Nellore and the cattle show at Addanki were decidedly successful, and showed that the prejudices of the population against such shows had to a great extent been overcome, but elsewhere the attempts did not succeed in rousing any general interest. Where this was the case, it has been decided not to repeat the experiment at present, but to intimate to the chief landholders and cultivators that, should they at any future time be desirous of emulating those of other districts, the Government will be willing to meet their wishes.

The experimental farm at Sydapet, in the vicinity of Madras, was continued during the year with fair promise of success, and the use of a superior description of agricultural implements is attracting attention. In order to obtain complete information respecting the system followed in native agriculture, exhaustive reports have been prepared in every district, and a mass of valuable information regarding soils, crops, modes of culture, &c., has been collected, which will furnish important data for agricultural experiments, and for future adjustments of the Government demand upon the agricultural classes.

In the Government tea plantations in Kumaon and the Dhoon, an experiment has been tried, of manufacturing tea from the flower-buds, before they expand. Should the produce prove saleable, the value of the plantations will be considerably increased, for many thousand pounds of the buds can annually be collected, Tea.

with much advantage to the bush, as a great quantity of flowers exhausts the plant, and prevents a large crop of leaves.

The condition of the people in the tea districts has been materially improved since the cultivation was introduced; they are better clad, fed, and housed; and the only complaint is on the part of the planter seeking for more hands.

On the estates in the Kangra Valley great scarcity of labour is experienced by the tea planters, and in one case a loss of 4,000 lbs. occurred, owing to the dearth of hands. The Government operations in these hills, so successfully conducted for 20 years by Dr. Jameson, have been brought to a close by the sale of the Holta estate.

The only tea plantation in British Burmah is in the district of Akyab; the soil and climate have proved most favourable to the plant, and the cultivation is being largely extended, but the great difficulty is to obtain labour.

In the Madras plantations there are now about 13,500 plants, some of which have flowered, and a supply of fresh and good seed will soon be available for the public at a fair price. Many plants have been distributed gratuitously to the inhabitants of the hill tracts, and others sold to the planters at three half-pence each.

COTTON.

Promising experiments have been made in the cultivation of cotton in the North Western Provinces, but difficulty has been found in cleaning it with the rude native instruments now in use, and arrangements have been made for supplying the growers with improved gins.

With the first rumours of peace in America, the price of cotton began to fall, till in some districts it was no higher than before the commencement of the civil war in the United States. At Meerut, the price in October 1864 was 4 *l.* a maund, and in the summer of 1865 it had fallen to 16 *s.* for the same quantity. The natural result has been a great contraction of the cultivation, which is now not more than one-half of that during the preceding year. The low value of the cotton influenced the sale of the manufactured article, and there was a greater demand, at reduced prices, for both English and home-manufactured cloth.

The cultivation of the finer kinds of cotton in the Botanical Gardens at Seharunpore has been carried on successfully; but the natives do not care to obtain seeds, as a higher price is not realised in the market for cotton grown from them, than for the common shorter staple which is indigenous to the country.

In Oude the cultivation did not extend, except in the district of Fyzabad, where the local demand revived. The experiment of growing American cotton under the shade of mango trees was found to be successful, but the native seed is still preferred to that which is foreign to the country.

The low price of cotton, and the panic in the Bombay market at the time of the sowing season, led to a curtailment of the cultivation in the Central Provinces by about 15 per cent. The average yield was from 50 to 60 lbs. per acre in the Wurdah Valley, and 40 to 45 in other parts of the country. This would give something over 30,000,000 lbs. for the aggregate out-turn of the season, and nearly 6,000,000 lbs. were imported to receive the stamp of the Central Provinces market. Of the whole quantity, 29,250,000 lbs. were exported, or about 2,000,000 in excess of the previous year, notwithstanding the fall of prices.

Experiments in the cultivation of New Orleans cotton were conducted in the Wurdah Valley, under the supervision of an officer appointed for the work, with a clear profit of 114 per cent. on the outlay. Seed was distributed to private landholders, but without success, except in two cases, in one of which there was a profit of 283 per cent., and in the other, the soil being garden land richly manured, the owner reaped a profit of 811 per cent. on the expenditure. In Chanda also a space of 14 acres was sown with acclimatised New Orleans cotton seed, and the yield was worth 2 *l.* 9 *s.* an acre, or 346 per cent. on the outlay.

Improved ginning and pressing machinery has been set up, and the four principal yards have been paved with stone, to prevent the cotton from being soiled during the process of weighing and packing. Warehouses have been built by the dealers at these yards, and generally more attention is paid to the requirements of the English market than before.

At

At the Nagpore exhibition, a Platt's self-feeding cotton gin, and a cotton saw-gin, were set up and worked by steam power, a few intelligent natives being appointed to explain the working of the machinery to the visitors, many of whom were dealers from the cotton-growing districts.

The price of cotton at Nagpore, which at one time during the great demand rose to 1 *s.* 6 *d.* a pound, averaged throughout the year 1865–66 only 6¼ *d.* a lb.

In addition to the branch of the Bank of Bengal which has charge of the Government treasury at Nagpore, one has been opened at Jubbulpore, and the treasury made over to it. A subordinate branch was temporarily established at Hingunghat, during the cotton season.

In the Hyderabad Assigned Districts, the area of land under cotton cultivation has been reduced by three per cent. The average price, which from 1850 to 1861 was 11½ lbs. for the rupee, had risen in 1864 to a little less than 2 lbs.; in April 1865 it was 6½, and in April 1866 it again rose to 2 lbs. the rupee.

The area of land sown with cotton in British Burmah has diminished by one-third, in consequence of the fall in price. A considerable quantity was grown in the hills of Prome, but this cannot be expected to continue unless the price rises. Experiments with acclimatised New Orleans seed have been continued, but with little success. As the cotton cultivation has fallen off, that of sesamum has increased, and in 1865–66 there were about 20,000 acres bearing this crop, or nearly double the area so occupied in the previous year.

The quantity of cotton wool exported from Madras rose from 73 to 120 millions of lbs., and the value from 4,041,893 *l.* to 4,841,634 *l.* The area of land under cultivation, however, showed a further decrease of 226,000 acres.

The amount of cotton conveyed by the Great Indian Peninsula Railway has increased very largely. In 1864 there were 1,453,439 maunds carried; in 1865, 2,399,779 maunds, and in the first four months of 1866, 1,246,616 maunds, and this in addition to a very considerable quantity which was sent down by road. The question of pressing the cotton up-country has received much attention; and there is a prospect of the native merchants eventually adopting this improvement.

In carrying out the provisions of the Act IX. of 1863, to prevent adulteration and frauds in the cotton trade, an endeavour has been made to enlist the sympathies of the people in its favour, rather than irritate them by showing a determination to enforce the very letter of the law; and the results of this policy are admitted by gentlemen of the greatest experience in the cotton trade, by the managers of the large ginning factories, and by the inspectors on duty at the presses in Bombay, to be most satisfactory. Cases now rarely occur, of cotton being wilfully deteriorated by the admixture of foreign matter; and the staple reaches Bombay in a state of, comparatively, great cleanliness, and in a condition very superior to that of former years. The greatest watchfulness is, however, still required. There were only 35 convictions under the Act during the year, the great majority of owners having voluntarily consented to remove their cotton, when found to be dirty, in order to have it cleaned.

In addition to their special duty of preventing fraud, the officers of the department have paid much attention to the introduction of an improved description of cotton, and of a better style of cultivation. In the extensive district of Khandeish a revolution has been effected in the cotton culture, by the extirpation of the indigenous seed, and substitution of that from Berar. The strictest injunctions are given to the officers to abstain from any interference with the free action of the cultivator.

In the frontier district of Upper Sind, experiments are in progress for growing the Peruvian and Egyptian cotton. About 2,700 lbs. of the seed have been distributed among the landholders, for whose use eight roller cotton gins have been obtained from England.

A work on the textile manufactures of India, which has for some time been in preparation under the supervision of Dr. Forbes Watson, the Reporter on Indian Products, has been recently completed; and 20 sets have been distributed to the principal cities of India, and the chief seats of commerce in Great Britain and Ireland. Each set contains 700 working samples of cotton, silk, and woollen fabrics, and is accompanied by a memorandum on the textile manufactures and costumes of the people of India.

CHINCHONA. The cultivation of the chinchona in British Sikkim is progressing very satisfactorily, and several companies and individual planters have purchased plants from the Darjeeling nurseries. Specimens of red bark, two years old, have been analysed in England, and found to contain 3½ per cent. of febrifuge alkaloids.

The tea planters of Chittagong, being desirous of introducing the chinchona into that district, the curator of the Botanic Gardens proceeded thither with 200 plants of the succirubra species, which it is thought may be likely to thrive there.

In Madras, notwithstanding the unfavourable character of the season, unprecedented progress was made in the chinchona plantations, and the total number of plants was doubled during the year. The trees, which were first put out in August 1862, are now from 12 to 20 feet high, and have already produced millions of excellent seeds. The bark of the oldest plants has increased in thickness and improved in appearance, and the yield of crystallised sulphates of the red bark species (*C. succirubra*) has been ascertained to be no less than 10 per cent. The bark of the *C. officinalis* has yielded nearly 8 per cent. of quinine, and it has been found that this hardy and most valuable species thrives as well in the open grass land as on land which has been cleared of forest. It has been proved that strips of bark may be removed from the trees without injuring them, if moss be immediately applied, and that, by mossing them before it is stripped off, the bark may be immensely improved both in thickness and quality. Moreover, the second growth of bark, treated in this way, is richer in quinine than the first, and the third than the second. Now that seeds are produced in abundance, the number of plants may be rapidly increased to any desired amount, and the cultivation be readily extended to all favourable localities.

In order to make the benefits of the chinchona as accessible as possible to the poorer inhabitants, the Government officers have been instructed, whenever they may find it practicable, to promote the cultivation of the tree by villagers and small holders of land in suitable situations.

A chinchona plantation has been formed by his Highness the Rajah of Travancore, at Peerméde, on the hills in his territory. Plants are growing well on the Pulney hills, on several plantations in Wynaad, and in Coorg, and the Bombay Government have an experimental plantation on the Mahabaleshwur hills.

A commission of medical officers has been appointed, to conduct inquiries with a view to test the efficacy, as febrifuges, of the chinchona alkaloids other than quinine. Fourteen surgeons, holding appointments in localities where fever is prevalent, have been directed to conduct experiments, and submit monthly tables of the results of their investigation; and one medical officer has been specially selected to visit the hilly districts of the Northern division, where fever of every variety prevails, and to remain at the different stations a sufficient length of time to test the effects of the alkaloids, both relatively and positively. An analytical chemist has also been appointed, for a term of three years, to investigate on the spot various points connected with the cultivation of the tree, and the extraction and use of its alkaloids.

IX. SANITARY MEASURES.

On the institution of an inquiry into the causes of the fearful mortality which takes place at Pooree, in Cuttack, among the pilgrims to the Temple of Juggurnauth, it was found to be distinctly traceable to two sources, the quality of the pilgrims' food, and the nature of their lodging in the town. Those of the poorer class usually travel in companies, and are consigned to the care of some priest, by whose agents they have been induced to undertake the journey, and who is supposed to make himself responsible for their food and lodging. The food is procured in the temple, and that portion which is supplied from the revenues of the establishment is probably good. This, however, is mostly appropriated by the attendants; and by far the larger part, consisting of rice and dâl of the worst description, is furnished by a set of cooks, who have a hereditary right to prepare and sell food within the sacred precincts. The accommodation in the priests' houses is wretched in the extreme; and the overcrowding, bad food, and exposure of the journey, combine to invite an outbreak of cholera.

The

The superintendence of the temple was, by Act X. of 1840, vested in the Hindoo Rajah of Khoorda, with full power to provide for the proper supervision of the temple usages in every department; he has ample authority to regulate the sale and removal of the sacred food, to inspect the stores of grain within the temple, and to remove any officers obstructing his authority on these points. The magistrate of Pooree was accordingly instructed to make a formal requisition upon the Superintendent, insisting on the discharge of his duties, and warning him of his responsibilities. At the same time, orders were issued for establishing a system of inspection by Hindoo police officers of proper caste, and of such standing as would enable the magistrate to place confidence in their reports. It was also determined to pass an Act specially adapted to the character of the place, for the regulation of the overcrowded lodging-houses.

A virulent outbreak of cholera occurred during the year in Cuttack, and it was much aggravated by the scarcity which simultaneously prevailed throughout the province of Orissa. In order to prevent devotees from visiting the Temple of Juggurnauth at this crisis, notifications were issued warning the public of the risk to be incurred by a visit to that place, and they had the desired effect of keeping back a large number of pilgrims.

In Calcutta a conservancy railway has been commenced, for the purpose of transporting to the Salt-water Lake the immense quantity of refuse which the municipality has daily to remove.

A square mile of land has been taken up at that spot, with the view of utilizing the sewage for the purposes of agriculture; and, should the experiment succeed, it may have an important bearing on the ultimate health of the city, by leading to the entire reclamation of the Salt Lake tract.

The excavation of the drains in the city has been carefully supervised, and active measures were taken to bring to justice offenders against the conservancy laws.

The Hindoo community has subscribed the sum necessary to render the process of incremation at the burning ghauts inoffensive; and the practice of throwing corpses into the river has been stopped, the bodies of paupers being now burnt at the public expense.

By the supervision of these places and of the cemeteries, the justices have the means of fixing the number of deaths in the city with tolerable accuracy; but little more than half of the number thus ascertained is registered, and still greater difficulty is found in inducing the people to register the births of their children. Assuming the population of the city, including the fort, bazaar, and shipping, but excluding the suburbs, at 400,000, the rate of mortality in 1865 was no less than 58 per thousand.

The faulty construction of the Calcutta Medical College Hospital, and the impossibility of separating different classes of patients therein, lead to a high per-centage of deaths; and a proposal is under consideration for either removing the hospital to another site, or providing special accommodation for obstetric and choleraic cases.

Sanction has been given during the year for the establishment of several new charitable dispensaries, the funds for which are provided by the liberality of native gentlemen.

In addition to the system of vaccination which is now in force by means of the dispensaries, an endeavour has been made to spread more widely the benefits of this inestimable discovery, by means of a special agency for the purpose. The experiment has been, in the first instance, sanctioned for a circle of which Darjeeling is the head quarters, in which a superintendent will be established (with one European and three native assistants), whose duty it will be to devote his whole time to furthering the spread of vaccination among the masses of the people, by means of 30 vaccinators placed at his disposal.

In August 1865, small-pox appeared at Deoghur, and, being fostered by the prejudices of the people, continued to make head, till, in January 1866, it threatened to extend to the neighbouring villages, while the approach of the religious fair at Deoghur caused alarm, lest the contagion should spread among the pilgrims to the shrine. Accordingly, the town and neighbourhood were placed in quarantine, and the magistrates of all important places through which the crowd approach the scene of danger were directed to warn the devotees of the risk which they were incurring, and to use all legal means to induce them

to turn back. These measures were found successful; a large proportion returned to their homes, while those who reached their destination were only permitted to enter the town once, for the purpose of visiting the temple of Baijnauth; and, under these restrictions, the assembly dispersed, without having contracted any infection. The disease in the town soon afterwards began to die out, and lost its epidemic character; but not until 1,659 cases had been brought to the notice of the authorities, of which 292 proved fatal. Inoculation has now been declared penal, under Act IV. of 1865, in the town and the surrounding villages; and some success has attended the efforts of the civil surgeon. who, by judicious tact, induced the Brahmin operators to substitute vaccine matter for small-pox virus, and then abstained from interference with any ceremonies which the superstitious might choose to attach to the operation.

By the above-mentioned Act of the Bengal Council, No. IV. of 1865, the practice of inoculation was prohibited, in all towns which were under the District Municipal Act; and the provisions of the measure have been brought into force in many of the principal towns of the Lower Provinces, and their adjacent villages.

A very satisfactory improvement is observable in the returns of vaccination in the North-Western Provinces, the successful cases having increased from 77,135 to 125,072. In some districts the prejudices to be overcome are very strong, the Hindoo population being wedded to inoculation, and looking on the small-pox as a kind of religious institution, with which they ought not to interfere.

A scheme is being prepared for the general sanitary supervision of towns and districts; and in the meantime, a memorandum, prescribing for adoption a few general rules, and detailing the advantages which have been derived elsewhere from their introduction, has been circulated to the Goverment officers in every district; copies have also been printed in the vernacular languages for general distribution, and the native gentlemen have been assured that their influential exertions in promoting the object in view would obtain for them the marked approbation of the Government.

For the first time, returns have been prepared, showing the mortality for the year, in each district of the Punjab. As the death-rate for the whole province appears from these documents to be only 17·1 per thousand, or considerably less than that of England, there can be little doubt that they are imperfect; but this must be expected at first, and it is satisfactory that, in obtaining the statistics, not the slightest opposition has been met with on the part of the people.

A code of simple sanitary rules has been printed in the vernacular, and circulated among the head men of the towns and villages, calling their attention to the most essential principles of conservancy; and in some parts the people have evinced a disposition to respond to the appeal.

There is a general backwardness to contribute to the cost of dispensaries, with the notable exception of the district of Sealkote, where the people have agreed to the imposition of an annual cess of three half-pence on each house, for the purpose of providing funds for the establishment of a dispensary in each subdivision. The rate is collected by the village headman, without the interposition of the Government officers, and the expenditure is controlled by local committees, elected by the people, subject to a district committee, over which the Deputy Commissioner presides. The income is estimated at 1,000 *l.*, and with the proceeds four dispensaries have been opened with suitable establishments, the surplus being devoted to the education of seven young men, who have been sent to the Government Medical School at Lahore.

The opposition of the people to vaccination is disappearing, and in some districts the inhabitants are beginning to prefer it to inoculation. Some successful attempts were made to induce the native physicians to practise it on their own account.

Although it can be little more than a happy coincidence, it is a subject of thankfulness that, in the second year in which attention has been generally paid in the Central Provinces to sanitary matters, the public health has been unusually good, as the circumstance will enlist many influential natives in the cause of sanitary improvement. Not merely have the sub-committees of the

town

town municipalities continued their efforts, but a commencement of measures of conservancy has been made throughout the whole country.

The immunity from cholera which the province has enjoyed is partly attributable to the measures taken to stop certain annual religious gatherings at critical times of the year. The usual assembly at Bhudrachellum on the Godavery was forbidden; and in the Eastern districts it was ordered that no fairs should be held after the 1st of March. So far as can be ascertained, the natives make no objection to the regulation, on sanitary grounds, of the seasons when their religious gatherings shall be held.

In British Burmah a steady advance is being made in the diffusion of the protective influence of vaccination; and the number of persons who submitted to it was nearly half as large again as in the previous year.

With the view of extending as far as possible the benefit of European medicine throughout the country, where dispensaries cannot be established, medicines of a simple kind have been distributed to missionaries stationed at remote places in the interior; and the results have proved satisfactory.

The general health of the province was good throughout the year, except in the town of Akyab, where, in spite of improved sanitary measures and increased vigilance on the part of local authorities, an outbreak of cholera occurred in March 1866, and carried off upwards of 300 persons, chiefly coolies employed on the tidal creeks. In Moulmein there was a marked improvement of the public health, owing to the sanitary measures which were adopted.

Epidemic cholera prevailed to a great extent on the Malabar coast in the summer of 1865, and cholera and malarious fevers were unusually frequent on the table lands of Mysore, and in the northern districts which were suffering from famine.

The Vaccination Department in Madras has been placed on a new footing, and the results already appear more satisfactory than those obtained under the former arrangements.

The progress of vaccination in Bombay has been very great, and material aid has been rendered by the municipalities, which have entertained many additional vaccinators out of their revenues.

The Cowasjee Jehangeer hospital at Bombay for the treatment of diseases of the eye has been completed, at the sole cost of the gentleman whose name it bears; and the adjacent hospital for the reception of incurable lepers is expected to be soon ready for the reception of patients. Much progress has also been made with the new David Sassoon hospital at Poona. A committee of medical officers has been appointed to consider the practicability of establishing a small-pox hospital at Bombay, for the treatment of both Europeans and Natives. The death-rate in Bombay was higher in the year 1865 than it has ever been known to be before, and was not less than 35 per thousand. Fever alone caused a greater proportion of deaths than the average rate in England from all causes.

The special measures for limiting the ravages of cholera in India, suggested by the international Cholera conference which assembled at Constantinople, were, in addition to the operations of the Sanitary Commissions at the several Presidencies, the maintenance and extension of the steps taken by the Governments of Madras and Bombay for the regulation of the periodical pilgrimages to the places held sacred by the Hindoos; while, for preventing the spread of cholera from the shores of India to Europe and the intermediate countries, the conference recommended a system of passports, on the principle in force in the Dutch possessions in the Eastern Seas, and the extension and increased stringency of the Act passed in 1858 to prevent overcrowding in the native passenger ships on the coast of India.

A perusal of the preceding pages will show that the restrictions on the pilgrimages to shrines in India, at unhealthy seasons, have been successfully carried into effect in various parts of the country; and the attention of the local Governments has been directed to the question of adopting the measures best calculated to promote the object sought by the Conference. Commanders of ships conveying pilgrims from India to the Arabian Coast are to be required to carry bills of health from the Indian ports, and to submit their vessels to the inspection of the authorities at Aden, by which means a check will be placed

on the system of overcrowding the ships with passengers taken on board after they have left India.

X. Municipalities.

The action of the municipalities in the principal cities of India, in enforcing measures for the improvement of the public health, has been described in the foregoing chapter on sanitary measures; but a few points remain to be mentioned, in which operations of general utility are being carried on by means of local self-government.

A loan of 45,000 *l.* has been sanctioned for the municipality of Canning, towards the improvement of the town and port; the money will be advanced from time to time, as it may be required, without interest, for a term of five years, on the security of the property of the municipality, the port dues being retained in the hands of the Government.

At Delhi, a new institute, erected by the municipality, has been completed during the year under review.

In the Central Provinces much attention has been paid to the adaptation of the municipal taxes to the circumstances of particular towns. In most cases an octroi duty has been found to work well; but in places where traffic to a great extent rests in transit a house tax has been substituted.

Municipal action has gradually become general throughout the Madras Presidency, and in several districts considerable sums have been raised by private subscription for sanitary, and other public purposes. The voluntary town associations, which in Vizagapatam, Godavery, and Bellary, have worked satisfactorily during the year, will shortly be merged in the municipal committees about to be formed under the Towns Improvement Act.

The passing of an Act for the management of the municipal affairs of Bombay, which was demanded by the urgent necessity for the improvement of the sanitary condition of that city, was mentioned in the Report* of last year. It came into effect on the 1st of July 1865; and under its conditions the bench of Justices, who had formerly only a nominal voice in municipal matters, have become a corporation with almost supreme control over the affairs of their city, while the executive power and responsibility is vested in a single commissioner appointed by the Government for a term of three years, instead of being divided among three commissioners, with equal power but divided responsibility. The revenue of the municipality during the year 1865–66 was 227,824 *l.*

* Page 68.

The streets of the city of Bombay were for the first time lighted with gas, on the 7th of October 1865.

XI. Population.

The second census of the North-Western Provinces was taken on the 10th of January 1865, 12 years having elapsed since the previous enumeration of the people. The native population was found to be 30,115,312, of whom nearly 26,000,000 are Hindoos. On comparing this return with that obtained in 1853, and making allowance for the alteration which has occurred since that time in the limits of the provinces, the population is found to have decreased by about 270,000, while the relative proportion of the sexes, which in 1853 showed 87·3 women to every 100 men, is found to have fallen to 86·6 females to 100 males. The only district in which an increase of population appears to have taken place is Goruckpore, into which there has been considerable immigration. The accuracy of the return of 1853 is questionable; but, even if the statements then furnished were correct, the war of 1857–58 and famine of 1860–61 fully account for a certain retardation of the numerical progress of the people. The Europeans in these provinces number 22,692, while the Eurasians, who were hitherto supposed to form a numerous class, are not reckoned at more than 5,069.

In British Burmah, the population is found to have increased since the previous year from 2,196,180 to 2,273,049, or 3½ per cent. The present numbers give about 25 persons to each square mile.

XII. Postal Communication.

The principal recommendation of the Select Committee of the House of Commons on the communication with the East Indies, so far as regarded the conveyance of the mails to India, was that tenders should be invited for a weekly service to Bombay alone, and the separate service to Madras and Calcutta be discontinued, the time table being based on a higher contract-rate of speed than is at present in force.

Since the commencement of 1867, two additional steamers each month have been placed by the Peninsular and Oriental Steam Navigation Company on the line from Bombay to Suez, with the view of ascertaining at what probable expense to the public such a service, or a weekly one, could be permanently maintained.

XIII. Ecclesiastical Establishment.

Four new churches have been completed in the Punjab during the year under report, at the stations of Pind Dadad Khan, Shahpoor, Rajanpoor, and Montgomery; and that which is being built at Attock was nearly finished. In the Central Provinces the churches at Raepore and Bhundara were completed, and others are in progress at various places. The new church at Rangoon was opened for divine worship in the course of the year. In Madras two churches were consecrated, the one at Kurnool, and the other at Mysore; and funds are being raised for the erection of a new church at Ootacamund. In the Bombay Presidency churches have been consecrated at Poorundhur and Matheran, and a mission church at Kurrachee has been thrown open for public worship.

The position of the junior chaplains has been improved by a rule fixing the period of service entitling them to promotion to the senior rank at 10 years, without debarring any one who may attain that grade, by means of vacancies, in a shorter time, from the advantages which he would thereby have gained.

A heavy loss was sustained by the English community in India, in the accidental death of the Bishop of Calcutta, who was drowned on the 6th of October 1866, as he was embarking on board a vessel at Kooshteah, at the close of a tour which he had been making to inquire into the spiritual wants of the Province of Assam. In announcing the sad event, the Governor General in Council observed, "There is scarcely a member of the entire Christian community throughout India, who will not feel the premature loss of this prelate as a personal affliction. It has rarely been given to any body of Christians in any country to witness such depth of learning and variety of accomplishments, combined with piety so earnest and energy so untiring. Large numbers, even among those of Her Majesty's subjects in India who did not share in the faith of the Bishop of Calcutta, had learned to appreciate his great knowledge, his sincerity, and his charity, and will join in lamenting his death."

XIV. Native States.

Bhootan.

The circumstances under which the treaty with Bhootan was signed were mentioned in last year's Report;* and, so far as the stipulations were susceptible of immediate fulfilment, they have been complied with, 72 captives having been set at liberty, and the cession of the Dooars being completely effected. The whole of the Bhooteah possessions in the plains has thus become British, and a slip of hill territory is interposed between Bhootan and Sikkim, whereby it has become practicable to open a direct route with Thibet, without passing through any intermediate foreign state. The survey of such a route, and of the frontier generally, will be undertaken as soon as possible.

* Page 69.

North-East Frontier.

In January 1866, a party of Garrows, in the north-east of Bengal, made a raid on a village in Mymensing, and, after decapitating three women, retreated with the heads to their hills. A force of 100 police was immediately organised to apprehend the murderers and their abettors; and the expedition proved successful, the guilty villages having been punished, and some of the chiefs concerned in the outrage having been captured. It was, however, determined to take more effectual measures to prevent these people, who inhabit a tract

surrounded by districts under regular administration, from carrying on their internecine feuds, and proving a source of terror to their neighbours in the plains; and a special officer has, accordingly, been appointed to the charge of the Garrow Hills, on the footing of a Deputy Commissioner, with full police powers and a suitable establishment.

A similar raid having been made by the Angami Nagas in North Cachar, the question of the frontier defence against these tribes was taken into consideration; and it was ascertained that the treaties with Burmah and Munipore make no provision for any intermediate independent territory between those countries and British India, and that the Angami Nagas are not independent, except in the sense that the British Government has hitherto refrained from reducing them to practical subjection, and has in general left them entirely to themselves. Since 1854, the Nagas have made as many as 20 incursions into the plains, and have killed, wounded, or carried into slavery, no less than 250 persons. The time, therefore, seemed to have come for the British Government to re-assert its authority over these wild people, and to endeavour to reclaim them to order and civilisation. With this view a re-arrangement has been made of the districts in Cachar, by which the right bank of the river Dhunseeri with the Angami Naga Hills, will be brought under the supervision of an Assistant Commissioner, whose head quarters will be at the commanding position of Samoogooting.

The peace of the hill-tracts of Chittagong was much disturbed by raids committed by the Shindoos, who in one instance carried off 39 men and women into slavery. Police posts have been established on the frontier, in such strength as will, it is thought, be sufficient, with the aid of the Poang Rajah, to check these invasions; and the Commissioner of British Burmah has been directed to take measures for freeing the captives, and for the prevention of such raids in future.

Numerous charges of cattle-lifting having been brought by the Nepalese Government against British subjects, Mr. Gordon, of the Bengal Civil Service, was deputed to report on the state of crime and police on the border. In pursuance of this object, he, in company with the Nepalese Commissioners appointed for the purpose, traversed the whole length of the boundary between Nepal and the Lower Provinces; and his inquiries showed that the specific charges of the Nepalese Government had been enormously exaggerated, but that a great deal of crime did prevail on the frontier, and that cattle-stealing from Nepal by gangs of thieves settled in British territory was very common. The extradition treaties with Nepal have, therefore, been extended so as to include the offences of culpable homicide and cattle-lifting; the border police has been strengthened, and placed under responsible officers; it has been pointed out to the magisterial authorities that the object of the treaties is not to protect criminals by a too rigid adherence to forms, but to further the cause of justice by enabling competent tribunals to investigate credible charges; and an assurance has been received from Maharajah Jung Bahadoor of the willingness of the Nepalese Government to co-operate in these measures, by re-organising its police in the Terai, and by freely communicating with the British authorities, in the case of the occurrence of crime.

In order to improve the administration of justice in Cooch Behar, the inefficient native officers have been pensioned, and their places supplied by more capable men. The police force, also, has been thoroughly re-organised, on the system in force throughout British India.

SIKH STATES.

Sirdar Gurbuksh Sing, the chief adviser of the late Rajah of Nabha, one of the Sikh States, having accused the present chief of being the instigator of the death, by poison, of his brother, the late Rajah, and also of the murder of his relative, Mehtab Kour, in British territory, who was supposed to have been cognisant of the crime; while, on the other hand, the Rajah accused the Sirdar himself of being the author of the latter crime, Major Cracroft was deputed to Nabha, to investigate the occurrences, in conjunction with the Maharaja of Patiala and the Rajah of Jheend. Their inquiries resulted in the clearance of the Rajah's character from both charges, the late chief having died from natural causes, and in the confirmation of the belief that Sirdar Gurbuksh Sing was guilty of the murder of Mehtab Kour. Having regard to the state of intrigue in the Nabha State, however, it was thought right to give the Sirdar an

an opportunity of defending himself before a British tribunal; and he was accordingly tried at the Umballah court of sessions, and, being ably defended by English counsel, was acquitted, owing rather to the conflicting character of the evidence than to the establishment of his innocence. The Rajah has since been induced to dispense with the services of certain intriguing and disreputable members of his court; and it is hoped that in time the administration will improve.

NORTH-WEST FRONTIER.

Only a single raid of importance took place on the north-west frontier during the year, on which occasion a party of the Suleiman Kheyl tribe of Ghilzyes attacked an encampment of the Khirotees, in revenge for a similar attack made by the latter in the preceding summer. A detachment of the marauders succeeded in killing seven men, a woman, and a boy, and driving off the cattle and camels of the tribe; but, before they had made good their retreat, they were overtaken by a small party of the 4th Punjab Cavalry, who, after a running fight of some hours, drove the marauders into the hills, and rescued all the cattle. The property of the Suleiman Kheyls within the Dera Ismael Khan district was promptly seized by the Civil authorities, and the tribe was called on to pay compensation to the Khirotees, and a heavy fine to the British Government. The former has been paid, and the latter is being gradually realised as their caravans return from Hindostan.

Quarrels having broken out in some villages in the Lundkhor Valley, on the frontier of Eusufzye, and an endeavour to effect a reconciliation proving fruitless, it became necessary to resort to more decided steps to enforce the authority of the Government; and, as the position of the villagers was a strong one, and the probability of their obtaining assistance from Swat and the border tribes was great, it was deemed expedient to employ a considerable force. Accordingly, 3,000 men of the Peshawur Brigade, with a mountain train and battery of horse artillery, under the command of Brigadier General Dunsford, was despatched to the Lundkhor Valley on the 15th of January 1866. Overawed by the presence of so large a force, the people offered no resistance; the three villages were levelled to the ground; the khans of the independent tribes who had taken part in the disturbances, made their submission; and on the 23rd of January the force returned. The villages have been rebuilt upon the plain, where they are accessible, and cannot receive aid from independent tribes. It is a satisfactory evidence of the good results of the Umbeyla campaign, that no aid was given to the refractory British subjects by tribes beyond the border, and that the Akhoond of Swat, recognising the justice of the measure, proclaimed that the duty of subjects was to obey their rulers, and abstain from internecine strife.

Through the exertions of Major Graham, the Deputy Commissioner of Dera Ismael Khan, some of the Mahsood Wuzeerees, the most numerous and one of the most warlike tribes on the frontier, have been induced to settle as colonists in the British territory. The success of the experiment is, as yet, doubtful; but it is considered that the small expenditure incurred is well bestowed, as a perseverance in the exercise of humanising influences on the border tribes is more likely to lead to a permanent pacification of the frontier, than their subjection by military force.

AFFGHANISTAN.

Throughout the intestine warfare which broke out in Affghanistan on the death of Dost Mahomed, the policy of the British Government has been one of strict neutrality. While recognising as the Chief of the country, the Ameer, Shere Ali Khan, who was designated by his father as his successor, it has given no encouragement to his enemies; but it has not refused an asylum to refugees from either party, so long as they conduct themselves peaceably, and has replied in friendly language to communications from both sides.

KHOTAN.

In December 1865, an envoy arrived from the Badshah of Khotan (that is, the newly constituted Governor of the Mahomedan population, who had revolted from the Chinese rule), with a communication from that Chief, soliciting assistance from the British Government, and offering to open out a new route for traffic between Elchi, the capital of Khotan, and British India. Every facility was afforded to him of becoming acquainted with the products and manufactures of British India, and he had an interview with the Viceroy at Calcutta. A letter was granted to him, expressing the desire of the British

Government to be on friendly terms with the ruler of Khotan, and to encourage commercial relations with that country, but declining to enter into a treaty, on account of the great distance from India, and the difficulties of the way. Shortly before this occurrence, Mr. Johnson, an assistant in the department of the Great Trigonometrical Survey, who was employed on the north-east boundary of Cashmere, received an invitation from the Chief of Khotan, to visit him at Elchi. Mr. Johnson succeeded in penetrating to Khotan, by a new route over the Kiun Liun, through the Gangi Diwan Pass; and, after a sojourn of 16 days at Elchi, he returned by the Sangi Diwan Pass, to Shadula in Cashmere. A detailed account of this journey has been printed by order of the Government.

BAHAWULPORE. * Page 70.

It was mentioned in the Report * of last year, that, on the death of the Nawab of Bahawulpore, and accession of his infant son, the country had fallen into a state of anarchy. In this condition of affairs, the ministry threw itself upon the protection of the British Government, and repeatedly desired its interference. The Native agent of the Government of India was accordingly directed to take up his residence in the capital, and render to the young Chief and his advisers such assistance as he could by way of friendly counsel, without compromising the neutrality of the Government.

This measure proved very beneficial, in confirming the wavering loyalty of a large portion of the army, and disheartening the rebels; but the state of affairs continued to be very unsatisfactory, and the Durbar again besought the interference of the British Government. Mr. Ford, the Commissioner of Mooltan, was thereupon deputed to Ahmedpoor, nominally to congratulate the young Nawab on his accession, but at the same time to ascertain the wishes of the people with regard to the future administration. Owing to the energy and tact displayed by Mr. Ford, the insurrection which had broken out was quelled; and the Government of India, being at length convinced that the Nawab would be unable to maintain himself on the throne, and that the interests both of the ruler and the people demanded active interference on the part of the British Government, agreed to undertake the administration during the minority of the Prince, under the management of a Political Superintendent. The principle to be held in view, according to the instructions given to the Lieutenant Governor of the Punjab, is to employ as many of the old officials and people of the country as may be found practicable, and to maintain their former designations, the object being rather to improve the native administration than to supersede it by a different system of which the people have no knowledge; so that, when the authority shall be restored to the Nawab, there may be some hope of the improved mode of Government being continued under a trained body of Native officers.

BURMAH.

In August 1866 an attempted revolution in Burmah was caused by the resentment of some of the sons of the King against the appointment of his brother as Crown Prince and heir to the throne. The insurgents burst into the royal palace whilst the King was engaged in conversation with the British Agent, and, though his Majesty was rescued, two of his sons and the Crown Prince were killed. The British Agent narrowly escaped with his life, and, having a steamer at Mandalay, brought away all the European and American residents who chose to embark with him. The rebellious princes were subsequently compelled to flee the country and take refuge at Rangoon; and the Chief Commissioner has proceeded to the Burmese capital, in order to take measures for the improvement of the commercial relations subsisting between the Government of India and that of Burmah.

Plans have at various times been submitted by different associations or individuals for the construction of a road or railway between British Burmah and Western China; but, in the absence of a reliable survey, it is impossible to form an opinion respecting the difficulties of the intervening country, and the cost to be incurred in surmounting them. The Government of India have, therefore, been desired, unless they see insuperable objection to such a course, to form a surveying or exploring expedition to ascertain the best route for a road or railway between the frontiers of British Burmah and Kiang Hung in Western China, the consent of the Court of Mandalay, and the other rulers of the territories through which the road must pass, being in the first instance obtained.

In

In accordance with the Act* passed for the purpose by Parliament in 1866, the administration of the Straits Settlements and the negotiations with the Malayan chiefs were, on the 1st April 1867, transferred to the management of the Colonial Office. STRAITS SETTLEMENTS. * Act 29 & 30 Vict. c. 115.

The system of free trade has been in regular operation within the dominions of the Nizam, and the city and cantonments of Hyderabad have been thoroughly supplied with grain, without any interference of the Government. The police administration is improved, the robberies of mail carts have decreased, and there have been none of the great treasure dacoities which used to occur not unfrequently. THE NIZAM.

The land revenue of Mysore was 754,921 *l.* in 1865-66, showing a steady progressive increase, amounting, in the course of the last 10 years, to about 75 per cent. The yield of the coffee plantations has somewhat fallen off in the last year, owing to the excessive drought of that and the preceding seasons. The forest lands available for the cultivation of this plant are rapidly becoming exhausted, and large tracts along the western mountains have been reserved for forest conservancy. The local manufacture of cotton cloth has revived, and work has been resumed on many looms which had been abandoned in consequence of the diversion of the cotton trade to England, while the area of land under cultivation for cotton has fallen during the year from 57,730 to 12,012 acres. MYSORE.

The number of schools in Mysore receiving aid from the Government has risen, during 1865-66, from 64 to 81, and the number of pupils from 4,333 to 5,642. The Engineering school has made marked progress, but the training schools for teachers do not succeed in attracting the better class of students. In order to improve the condition of the indigenous schools, of which there are some 1,600 within the Province, it is in contemplation to offer rewards to masters of proved efficiency.

The central gaol at Bangalore has been completed, and good progress has been made with the new public offices and civil hospital.

A large tract of country has for the first time been opened up by a road connecting the main road leading to Hassan and the coffee-planting district of Munzerabad; and several bridges have been thrown over the rivers and mountain streams which intersect the Province. A complete system of drainage for the town of Bangalore is being carried into execution. The Soolikerray tank, occupying an area of about 15 square miles, is about to undergo repairs, which will enable the whole country below the tank, which has lain waste for more than 50 years, to be brought under cultivation for rice and garden land.

The receipts of Mysore for the year 1865-66 were 1,091,600 *l.*, and the disbursements 1,012,200 *l.* In the last four years the income has risen by about nine per cent., and the expenditure by 11 per cent., owing to the larger outlay on public works and the progress of administrative reforms.

Owing to the failure of the autumn rains, the out-turn of the dry crops was for the most part very deficient, and the great rise in prices which has recently occurred is shown by the fact that the various kinds of grain are now from three to five times as dear as they were 10 years ago. Owing to the extravagant rates which ruled the markets in the cotton-growing districts of Bellary and Dharwar, the ryots exported their grain which had been hoarded for years, and in many places there has in consequence been an absolute want of seed for sowing. The people also suffered considerable inconvenience from the want of water, and the distress was aggravated by a visitation of cholera at the close of the year, and by excessive mortality among the cattle, which were decimated through the combined effects of drought and murrain. It is a satisfactory evidence of the material prosperity of the country that, notwithstanding these drawbacks, the revenue should have increased from 104 to 109 lacs of rupees during the year.

The question of the future disposal of the territory of Mysore has lately received the fullest consideration from Her Majesty's Government, in consequence of an appeal from the Maharajah. The decision communicated to the Government of India by Sir Charles Wood, in 1863, and again in 1865, that the Maharajah should not himself be reinstated in the administration, has been upheld; but the letter from his Highness raised the further question, in what manner the territory should be disposed of after his death.

Recognising in the policy which dictated the settlement of 1799 a desire to provide for the maintenance of an Indian dynasty on the throne of Mysore, upon terms which should afford a guarantee for the good government of the people, and also for the security of British rights and interests, and being animated by the same desire which pervaded the Government of that day, it was the earnest wish of Her Majesty that those portions of India not under Her immediate dominion should continue to flourish under Native rulers, co-operating with Her representatives in the promotion of the general prosperity of the country; and, in the case of Mysore more especially, having regard to the antiquity of the Maharajah's family, its long connection with the territory, and the personal loyalty and attachment to the British Government which his Highness had so conspicuously manifested, Her Majesty desired to maintain that family on the throne, in the person of his Highness's adopted son, upon terms corresponding with those made in 1799, so far as the altered circumstances of the time would allow.

In order, however, to secure the welfare of those who have for so long a period been subject to the direct administration of Her Majesty's Government, they felt it their duty, before replacing the people under the rule of a Native sovereign, to take all possible pains with the education of that sovereign, and also to enter into a distinct agreement with him as to the principles upon which he should administer the country, and to obtain sufficient securities for the observance of the agreement.

The Government of India have, accordingly, been desired to propose to the Maharajah that the young prince shall receive, under their superintendence, an education suitable to his rank and position, and calculated to prepare him for the duties of administration, without separating him more than is necessary from those over whom he may hereafter be called upon to rule.

Should the death of the Maharajah occur before the prince has attained his majority, the territory is to be governed in his name, under the same regulations as at present; and, on his reaching a suitable age, the administration of the whole or a portion of the State will be confided to him, an arrangement being previously entered into for the purpose of adequately providing for the maintenance of a system of government well adapted to the wants and interests of the people.

TRAVANCORE.

The judicial reforms in the administration of Travancore, which were initiated in the preceding year, have been persevered in; and important enactments, based upon those of British India, have been passed, on the subject of criminal breach of trust, the appointment of qualified pleaders for the courts, the adjudication of claims to waste lands on their sale under the recent rules, and the limitation of suits. An Act was also passed in 1865-66, to improve the constitution of the district Courts, by reducing the number of judges, rendering it competent for a single judge to sit in civil and criminal cases, and extending the jurisdiction of the courts of the moonsiffs, or native civil judges of the lower grade. The efficiency of the police has been much improved, though its organisation is still far from perfect. The influence of the sanitary improvements in the gaols was felt in their almost entire exemption from small-pox and cholera; and, in these circumstances, the construction of a new central gaol has been postponed, in order to give place to the not less urgent undertaking of the erection of public offices and a large civil dispensary.

In the Crown lands of the State, which are of considerable extent, the Maharajah, as landlord, has hitherto had arbitrary right over the land, and has not been bound to respect possession, or any title accruing therefrom to the tenant. These arbitrary rights have now been relinquished by his Highness, and the lands are declared to be private, heritable, saleable, and otherwise transferable, subject only to the declared assessment. They are thus placed upon a satisfactory footing, which immensely enhances their value, and gives a stimulus to their improvement which will tend largely to develope the agricultural resources of this extensive property.

Reduction of taxation has taken place on the irrigated lands in South Travancore, and upwards of a hundred petty and vexatious taxes have been abolished. The re-assessment of garden lands has been set on foot, but little progress in the measure has as yet been made.

The result of the interportal arrangements mentioned in the Report of 1864-65,

1864-65, during their first year of operation, have been satisfactory, considering the great stagnation of trade. The increase derived from the salt revenue was appropriated by the Maharajah to the abolition of the special duty on areca nut, and to the establishment of hospitals and extension of vernacular education.

The experimental tea and chinchona plantations, which have been established on the Peerméde Hills, appear to be successful.

Considerable advance has been made in educational institutions, and the effect is being felt in the different branches of the administration, in the supply of better qualified servants.

COCHIN.

In Cochin some progress has been made in the reform of the judicial administration, and the introduction of the Code of Civil Procedure has already produced a beneficial result, by facilitating the course of justice. Enactments have been passed, similar to those introduced in Travancore, for constituting authorised pleaders in the courts, and for the punishment of criminal breach of contract in certain cases. The bridge at Shoranoor was nearly completed, but it is intended to substitute a tramway for the proposed railway between that place and Cochin.

POODOOCOTTAH.

The conduct of the Rajah of the petty State of Poodoocottah has led to so deplorable a state of affairs that the Political Agent represented it to be a positive injustice to the people to be subjected to such a rule; and it was proposed to take vigorous measures to ensure good government, by reducing the Rajah to the condition of a zemindar, and imposing on him a contribution to defray the cost of administration. It was, however, determined to give the Rajah one more opportunity of fulfilling the promises of amendment which he has so repeatedly made and broken; and he has been seriously warned that this is the last trial which will be allowed him.

SOUTHERN MAHRATTA COUNTRY.

In the course of the year, the Governor of Bombay made a tour through the Southern Mahratta country, and at Kolhapoor he congratulated the Rajah in having proved himself worthy, after a long probation, to assume the direct government of his territories. Every department of the State was found to be well administered by his Highness in person, and there was every visible mark of justice being properly administered, and of the people being well governed, prosperous, and contented. More recently, however, intelligence has been received of the death of this young Chief, and of the adoption of a nephew as his successor.

The entire debt of the Kolhapoor State to the British Government, for the expenses incurred in suppressing the insurrection of 1845, has been liquidated; and it may be expected that, freed from this heavy incumbrance, the country will rapidly develope its resources.

At Belgaum, the Governor received the Chiefs of the Province, and expressed to them the pleasure which he would have in seeing them at the capital of the Presidency, which they might readily visit if they would discontinue the custom of moving about with expensive retinues; and the advice thus tendered is said to have made a perceptible impression on their minds.

Some progress in public works has been made by the Chiefs of the Southern Mahratta country; education is being gradually diffused among their dependants, and the financial condition of most of the estates, after years of chronic embarrassment, is now marked by well-assured prosperity.

The attention of the Government being drawn to the position of affairs in Akulcote, the condition of the State was found to be so unfavourable that it was considered necessary to place it under attachment, and to take the management into the hands of the British Government during the lifetime of the Rajah, or until he should appear competent to undertake the administration. The Secretary of State in Council, though regretting that even a distant relative of the Rajah, if fit for the post, had not been appointed Regent, confirmed the arrangement; but he desired that it might be distinctly notified that it was only temporary, and for the benefit of the Rajah and his successors.

KATTYWAR.

The lawless state of some parts of Kattywar was mentioned in the Report* of last year. In Okamundel there seemed a probability of an outbreak, and an additional regiment of native infantry was stationed at Dwarka and in the vicinity of the Burda Hills. The Political Agent devoted himself for several

* Page 72.

months to the task of hunting up the outlaws, and pursuing inquiries regarding the bands which have disturbed the province since 1857.

The internal administration of Kattywar has engaged much of the attention of the Government of India during the past year, and considerable changes have been introduced. Some important alterations have also been made in the organisation of the educational establishments, and the Chiefs have been induced to subscribe more liberally for the object of securing vernacular education to their subjects. Improvements have also been effected in the postal communication, and an exhibition was held at Rajkote of agricultural implements of European manufacture, which have been introduced, while a cotton-cleaning steam factory has been opened at Wudwan.

CUTCH. The revenues of Cutch, which are chiefly derived from sea customs, continued prosperous; and, though the poorer classes suffered from the high price of grain, there was very little violent crime. A girls' school has been opened at Mandavee, with an average daily attendance of 40 or 45.

BHEEL DISTRICTS. The only occurrence which disturbed the tranquillity of the Bheel districts was an incursion by a turbulent freebooter, named Ettai Naik, who was eventually captured.

SIND. Although great distress prevailed amongst the hill tribes on the northern boundary of the Upper Sind frontier, in consequence of a great deficiency of rain, there were only eight thefts, and those cases of simple cattle-lifting, committed during the year by people beyond the frontier. Hundreds of the Boogtee tribe, with their families, are now gaining a livelihood by labouring at canal clearances in the province, who formerly would have attempted, during a season of dearth, to support themselves by cattle-stealing along the border.

KHELAT. The Khan of Khelat has continued to maintain the most friendly relations with the British Government. An attempt to create disturbances met with signal defeat, and the leading conspirators were captured, and are now residing under surveillance at Khelat.

XV. ARMY.

A reduction of the rank and file has been authorised in each regiment of British Cavalry and Infantry on the Indian establishment, to the extent of 56 men in the former and 60 men in the latter branch.

The Battery of Native Horse Artillery at Madras has been broken up, on financial grounds, special advantages being offered to the native officers and men to induce them to accept their pension and discharge.

In the Bengal and Bombay armies the pay of the native troops has been hitherto considered to be composed of two portions, pay proper and batta; and it has been customary, when a native officer or soldier was on leave, to deduct the batta and only give him the bare pay. In the Madras army, however, no such distinction was drawn; and, as the cost of food throughout India has largely increased of late years, it has been determined to assimilate the practice of the other armies to that prevailing in the Madras Presidency, so that in future the native troops will receive full pay on all occasions. The cost of this measure is estimated at 10,000*l.* annually.

A system of minor punishments has been introduced into the native army, by which commanding officers are enabled to exercise certain definite powers for the suppression of crime and maintenance of discipline. The power to award punishment for petty offences, hitherto entrusted to subordinate native officers, has been partially withdrawn or suspended; and the British officers attached to these regiments have been enjoined to exercise a vigilant supervision, with a view of discountenancing and repressing acts of caprice and hasty conduct on the part of native officers of all grades.

The system of obtaining meat for the soldiers' rations by direct Commissariat agency, rather than by contract, was tried at several stations, in the year 1864, with success; and, the Commissary General having expressed his opinion that the plan would answer on active service, and that in the absence of contractors a regular and sufficient supply of meat for an army in the field could be ensured, instructions have been given for an extension of the system, as far as can be done with safety. It is hoped that this measure will conduce to the improvement

improvement of the quality of the rations, while the financial effect of the change is estimated at a saving of 36,000*l.* per annum.

The important question of the best means of affording to the Bengal Army the utmost possible advantage from the establishment of stations in the hills, to the full extent which the political and military necessities of the Government will admit, has been taken into consideration; and it has been decided to adhere to the present system, by which certain entire regiments are placed at hill stations, together with a proportion of soldiers selected from the corps which remain in the plains. Three regiments of infantry will thus be placed at Dugshaie, Subathoo, and Budraj near Mussoorie, and half a regiment of infantry with a garrison battery of artillery at Darjeeling. Five convalescent depôts exist already, at Darjeeling, Nynee Tal, Landour, Kussowlie, and Murree, and a sixth has been ordered for Dalhousie, besides small depôts at Dhurrumsalla and Jutogh (near Kussowlie). The accommodation at each depôt is to be calculated for 500 men, in addition to non-commissioned officers. By these means, about 17 per cent. of the whole force will be stationed in the hills; and the tour of duty is to be so arranged as to enable each regiment in turn to obtain the benefit of a temporary residence in the cooler climate.

Gymnasia are about to be established at certain stations in India, under the superintendence of a director of gymnastics; and Lucknow, Meerut, Rawul Pindee, and Sealkote, have been selected for the erection of gymnasia in Bengal in the first instance, similar buildings being constructed at two stations in each of the other Presidencies. It is contemplated to appoint regimental instructors when the scheme is sufficiently developed.

The experiment of employing soldiers to whitewash their own barracks, and to execute other repairs, has been attended with some success, the work in many instances being done very well, and much more rapidly than if it had been performed by ordinary native labour, and the men of several regiments have expressed themselves anxious in future to have such occupation. European soldiers have also been employed with advantage, and without interfering with discipline, in the construction of a road between the stations of Murree and Abbottabad; and a proposal to make use of their assistance in building barracks, and carrying out the works required for a new cantonment in the hills, is under consideration.

In order to encourage young and inexperienced soldiers to devote their leisure hours to instruction in such trades as they desire to learn, a system of annual prizes has been instituted to promote emulation in the regimental workshops.

At the time when the last statement of the progress of India was presented to Parliament, no decision had been announced in consequence of the report of the Commission presided over by General Sir John Aitchison, respecting the complaints of certain officers of the Indian Army. Shortly afterwards, however, namely, on the 8th of August 1866, the course which Her Majesty's Government had resolved to adopt was communicated to the Governor General in Council.

While pointing out that in some of their recommendations the Commissioners had not confined themselves strictly to the matters submitted for their consideration, and declining to re-open a question which had been finally disposed of by Lord Cranworth's Commission, Her Majesty's Government nevertheless determined to adopt, as far as possible, those suggestions which were not inconsistent with the opinions expressed by the former Commission; and, further, in order to remove all ground of complaint on the part of the officers who had received brevet but not substantive rank under the rules of 1864, they modified the rules relating to the admission to and promotion in the Staff Corps.

The following alterations of the previous rules were, therefore, notified to the Army.

The promotions of certain lieutenant colonels in Madras and Bombay were antedated to the 1st of January 1862.

All officers of the cavalry and infantry who attained the rank of regimental lieutenant colonel prior to that date, and Staff Corps officers who attained the same rank before the formation of those corps, were, on the completion of 10 years' service in that grade, to receive colonel's allowance, in the event of their not having already received it in ordinary succession.

The retiring regulations of 1837 were extended by the addition of pensions of 600*l.* after 35, and 750*l.* after 38 years' service.

The qualifying period of staff service, which had been required for entrance into the Staff Corps, was dispensed with as regards officers who had already entered it; and permission to join the Staff Corps was offered without restriction to all officers of the cadres of cavalry and infantry, promotion being granted from the date of receipt of the Secretary of State's Despatch to officers who would obtain it under this modification of the existing rule.

To all officers who might thus enter or have entered the Staff Corps, colonel's allowance was to be granted after 12 years' service in the grade of substantive lieutenant colonel, and the brevet rank of lieutenant colonel granted under the rules of 1864 was to be considered as substantive rank for this purpose.

In the Despatch conveying these instructions, Her Majesty's Government did not enter into the question of the claims made by many of the officers to compensation for money contributed by them towards the regimental retiring funds, seeing that those claims could not be justly supported by reference to the Parliamentary guarantee, as had been very clearly demonstrated by Lord Cranworth's Commission. Her Majesty's Government, however, being unwilling to leave to the officers generally any ground of complaint which could with propriety be removed, Lord Cranborne, in another Despatch of the same date, gave directions for the investigation of any claims preferred by officers on the ground of sums of money having been spent by them in purchasing the retirement of their seniors, and of their being now deprived, by the changes in the organization of the Army, of the opportunity of reaping a corresponding advantage.

It was accordingly directed that a committee should be formed at each Presidency to examine the claim of any officer below the rank of colonel commandant if in the artillery or engineers, and below that of regimental lieutenant colonel if in the cavalry or infantry, who, on proposing to retire, or having retired since the 18th of February 1861, would submit his title to compensation, with a declaration as to the sum, if any, which he had received or expected to receive, from the officers of his cadre on retirement. The committee were to ascertain the number of retirements among his brother officers to which he had contributed, with the amount paid in each case, and to subtract therefrom the estimated value of the advance in rank or position accruing to him under those arrangements, as well as the sum paid or to be paid to himself by the officers of his cadre on retirement, and the value of any special annuity granted to him in addition to the regulated pension; and the balance was to be paid to the retiring officer on his resignation appearing in orders.

In carrying these instructions into effect, the Government of India laid down certain general principles for the guidance of the Committees; but, while considering that they were in the main calculated to facilitate the investigation of the claims of officers, the Secretary of State did not think that the intentions of Her Majesty's Government would be so fully carried out under those general regulations as by a more particular inquiry into each case; and he has, therefore, desired that the instructions contained in Lord Cranborne's Despatches may be fully acted upon, and that each case may be considered upon its own merits, the main point being borne in mind that each officer concerned shall, as far as possible, be secured from absolute loss upon the money which he has actually paid throughout his entire service with a view to the purchase of promotion.

The rule requiring subaltern officers to vacate their regimental staff appointments of adjutant and quartermaster on promotion has been so far modified that, in future, an officer holding such an appointment, if possessing special qualifications and recommended by his commanding officer, will be allowed to retain it after becoming a captain; the rule precluding the nomination of an officer to such a situation after he has attained that rank will, however, continue to be in force.

On the formation of the staff corps in 1861, it was decided that pensions should be granted to the widows and families of officers of the British service who might join those corps, not less in amount than they would have received under the provisions of the Royal Warrant of 1855. A rule has now been passed, that claims to pension in such cases, and also those of the widows and families of medical officers or chaplains who have entered the service under the new

new conditions, shall be treated in accordance with whatever Royal Warrant may be in force at the time being as regards the British army.

In the Session of 1866, an Act of Parliament was passed, authorising the directors and managers of the several military funds and the Bengal Military Orphan Society to make over the assets, liabilities, and management of those institutions to the Secretary of State for India in Council, in accordance with a proposition which had been submitted to the subscribers, and in each instance carried by a large majority of votes; and the business of the funds was so transferred in the following autumn. Power was given by the same Act to the Government to accept the transfer of the medical funds in a similar manner, in the event of the subscribers hereafter signifying their desire to make them over, a majority of not less than three-fourths of those voting on the question being necessary to effect the arrangement.

Officers leaving the Indian army to join the line regiments, or Royal Artillery or Engineers, are allowed to withdraw from the funds, or, if they prefer it, to continue to subscribe, at Indian or European rates, according as they may or may not be drawing Indian allowances.

The report of the actuary employed by the Bengal Medical Retiring Fund to investigate the condition of that institution appeared to the Government to justify the belief of the subscribers that, but for the changes in the constitution of the medical establishment, they would have been enabled to grant a seventh annuity each year, as conditionally sanctioned by the Court of Directors in 1854; and permission has, therefore, been given for the allotment of a seventh annuity, with retrospective effect from 1862.

A benefit of considerable importance has been granted to the children of those officers of the Bengal army who died previously to 1856, inasmuch as, while the rule of the Military Orphan Society required all female orphans to proceed to India on attaining the age of 18, or to forfeit their pensions, they are now allowed reduced pensions of 30 *l.* per annum while they remain in Europe.

In reorganising the Medical Department in India, it was found impossible to amalgamate the staff of the British and Indian services. The establishment has, therefore, been revised in a manner calculated to secure efficiency in both branches, the financial result being an estimated increase of annual cost to the extent of 30,480 *l.* on account of the British medical staff, against which is to be set a saving of 18,000 *l.* per annum in the staff of the local army.

The report of the Commission on the future organization and staff salaries of the Indian Medical Department did not prove satisfactory; and the Government of India have been requested to revise it, salaries allotted for civil duties being in all cases consolidated, and irrespective of the army rank held by the incumbent.

Three new corps of volunteers were enrolled in the Bengal Presidency during the year 1865-66, namely, the Orissa Volunteer Infantry in Cuttack, the Assam Volunteer Cavalry at Debrooghur, and a company of infantry volunteers at Golaghaut; each of these corps numbers from 60 to 100 gentlemen in its ranks.

XVI. Marine.

The screw-pile moorings and chains, which were sent out for the port of Calcutta, in consequence of the destruction of the old moorings by the cyclone of 1864, were not found to be thoroughly adapted to the shifting bed of the Hooghly; and experiments are being made to test the relative merits of two different plans, the one consisting in the laying of the same moorings amended by a change in the form of the shackle, while the distinctive feature of the other is a ponderous and continuous ground-chain, kept in its place by screw-piles.

The measures taken to provide for the number of seamen thrown out of employment by the cyclone, drew attention to the existence, in the port of Calcutta, of a large population of unemployed sailors. To remedy this state of things, the Shipping Master, whose office will in future be held by the Collector of Customs for the time being, was directed to adhere carefully to the rules of the Merchant Shipping Acts in regard to discharges; and the Board of Trade

were requested to insist upon owners and masters of ships finding a passage home, in default of employment, for crews shipped only for the voyage to Calcutta, and for seamen committed to gaol, whose misconduct might have been shown to be attributable to bad or injudicious treatment on board. River-side dispensaries have also been established, and employment on public works has been found for sailors sentenced to imprisonment for breaches of discipline and petty offences. The effect of these measures has been that the number of unemployed seamen was reduced from 442 in January 1865, and 202 in the following September, to only 65 in May 1866.

XVII. Trade.

The trade between Bengal and America revived in the year 1865-66, the exports in that country from Calcutta being valued at 750,000 *l.*, as compared with 430,000 *l.* in 1864-65.

The number of vessels which arrived at the port of Calcutta was 1,089, with a tonnage of 801,170 tons. Those which cleared out were 1,120 in number, and the tonnage was 854,440 tons.

The imports of piece goods, cotton twist, and raw silk into British Burmah amounted in 1865-66 to the value of 1,300,000 *l.*,—no small quantity for the use of a population of a little above 2½ millions. The inland trade with Burmah also has rapidly increased since the abolition of the frontier duties on the British side of the border in 1863.

Trade between Yunan and Mandalay was re-opened during the year under review, and about 10,000 laden mules arrived at the Burmese capital.

The total amount of merchandise imported into the Madras Presidency in 1865-66 was valued at 2,513,089 *l.*, and the treasure at 1,981,176 *l.*, the corresponding amounts for the previous year having been 2,230,156 *l.* and 2,032,533 *l.* respectively. The merchandise exported amounted to 7,607,334 *l.* in 1865-66, as compared with 6,815,942 *l.* in 1864-65; and the exports of treasure were worth 161,683 *l.*, instead of 104,245 *l.* in the previous year. The number of vessels which arrived at the several Madras ports from foreign countries in 1865-66 was 3,185, with a tonnage of 471,268 tons; in the same period 3,549 vessels departed, of which the tonnage was 567,749 tons.

In Bombay, the merchandise imported in 1865-66 was valued at 13,969,752 *l.* in place of 14,462,860 *l.* in the preceding year; while the treasure amounted to 16,116,390 *l.*, as compared with 12,196,508 *l.* in 1864-65. The value of the merchandise exported was 35,743,176 *l.* in 1865-66, in place of 40,552,077 *l.* in 1864-65; and the treasure exported was 1,122,281 *l.*, against 1,080,824 *l.* in the previous year. The number of vessels entering ports in the Bombay Presidency from foreign countries was 1,194 in 1865-66, with a tonnage of 535,492 tons; and the number departed was 1,148, with 559,349 tons.

The full returns from Bengal and British Burmah not having been received, no general statement of the trade of the whole of India can be given for the year 1865-66; but some details respecting the imports into the United Kingdom from India, during the calendar year ended on the 31st of December 1866, are shown in the Trade and Navigation Returns published by the Board of Trade. It therein appears that the amount of raw cotton imported from India in 1866 was 5,493,770 cwts., as compared with 3,981,675 cwts. in 1865; the trade in hemp also showed an increase from 17,867 to 26,875 cwts.; of untanned hides, 189,281 cwts. were imported in 1866, in place of 173,451 cwts. in 1865; the imports of wool rose from 17,105,617 lbs. to 25,679,969 lbs.; and 74,256 cwts. of indigo were received, against 66,506 in the previous year. On the other hand, the imports of flaxseed and linseed showed the large decrease represented by 744,679 quarters in 1865, and only 267,739 in 1866; raw silk fell from 183,224 lbs. to 123,561 lbs., and silk manufactures from 86,057 to 57,816 pieces; 360,491 cwts. of sugar were imported in 1866, as compared with 448,029 cwts. in 1865; and of petroleum only 120 tuns were received, in place of 1,417 tuns in the preceding year.

The value of the British and Irish produce and manufactures exported to India was 19,957,342 *l.* in 1866, against 18,260,413 *l.* in 1865; and the amount of silver bullion sent from England, the greater part of which was destined for India, fell from 2,944,899 *l.* in 1865 to 2,148,286 *l.* in 1866.

The number of vessels entering at British ports from the East Indies in

1865 differed little from the return for 1866, 991 having arrived in the former year, with a tonnage of 834,895 tons, and 1,011 vessels in the latter year, with 871,174 tons. There was, however, a very considerable increase in the departures, the number of ships having risen from 907 to 1,065, and the tonnage from 779,474 to no less than 1,594,453 tons.

XVIII. Statistical Tables.

In the preparation of the statement of the progress of India during 1864-5, great want was felt of recent and accurate statistics respecting the advancement, either material or moral, which had been made in the several branches of the government in the course of the preceding twelvemonth. The trade and navigation returns were of too old a date to be applicable to the year under review; and the tables appended to the Administration Reports of the several Provinces were not framed in such a manner that they could be collected together, so as to give a fair idea of the progress of the whole Indian Empire.

This defect was accordingly pointed out to the Government of India, who, in reply, transmitted a set of forms which had been prepared by the Statistical Committee sitting at Calcutta, based, as far as the circumstances of India would permit, on the model adopted by the International Statistical Committee of 1860. These returns are divided into five principal headings, and comprise full particulars on the various points respecting which information is likely to be desired by those interested in the progress of our Indian Empire. The first class, containing statistics of physical, political, and fiscal geography, will show the area, character of the surface, and climate of the several British districts and Native States; the political relations existing with the latter; the character of the administration in the civil divisions of British territory; the population classified according to sex, religion, and occupation; the extent of land surveyed, the rate of assessment, the nature of the tenure, and description of the revenue realised. In the second class, or statistics of protection, are comprised statements relating to the course of legislation, the working of the judicial courts, the mode in which the prisons are conducted, and the character of the police force, army, and marine establishment. The third part, concerning production and distribution, includes the subjects of finance, public works, agriculture, prices of produce and labour, mines and quarries, manufactures and trade, coinage and currency and charitable institutions. Under the fourth heading will be found statistics of instruction, including the ecclesiastical and educational establishments, scientific and literary societies, and the press. The fifth portion will contain returns relating to life, the number of births, marriages, and deaths, the working of the dispensaries and hospitals, and the operations of the vaccination department.

It is not expected that, for the present at any rate, the whole of these forms can be filled up with accuracy; but it is believed that much of the information is already in existence, and can be readily given if the Government officers understand in what manner it is desired that the returns should be made; and the adoption of the forms has therefore been sanctioned, due discretion being exercised to avoid giving offence to the prejudices of the people.

A very useful and interesting paper* has been compiled in the Statistical Department of the India Office, showing in a compact form the particulars, so far as they are on record, of the area and population, revenue and expenditure, debt, shipping and tonnage, import, export, and bullion trade, coinage, emigration, railways, post office, army, education, public works, and telegraph, of India, from the year 1840 to 1865.

* Statistical abstract relating to British India presented to Parliament 1867.

According to this return, the population of the portion of India which is under British administration is 144,674,615; that of the Native States, 47,909,199; and that of the territories under the French and Portuguese Governments, 517,149, the total population of India (exclusive of the Straits Settlements) being 193,100,963.

The gross revenue of British India showed, with scarcely an interruption, a steady annual increase from 20,124,038*l.* in 1839-40 to 31,706,776*l.* in 1857-58. In the next three years more than eleven millions sterling were added to the

receipts, which were 36,060,788 *l.* in 1858–59, 39,705,822 *l.* in 1859–60, and 42,903,234 *l.* in 1860–61. The highest point was reached in the last year shown in this paper, namely, 1864–65, when they amounted to 45,652,897 *l.* The gross expenditure, which in 1839–40 was 22,228,011 *l.*, had risen by the year ending on the 30th of April 1857 to 31,608,875 *l.*; in the three following years it amounted, in consequence of the heavy expenses attendant on the suppression of the Mutiny, to 41,240,571 *l.*, 51,056,930 *l.*, and 51,861,720 *l.*, respectively. On the reduction of the military expenditure taking effect, the charges fell to 48,154,087 *l.* in 1860–61, 44,870,232 *l.* in 1861–62, and 44,053,122 *l.* in 1862–63, since which date they have again risen to 46,450,990 *l.* in 1864–65.

In the first 10 years of this return, comprising as they do the period of the Affghan, Sikh, and Punjab wars, there was an annual deficiency varying from 627,401 *l.* to 2,103,973 *l.*; but from 1849–50 to 1852–53 there was a surplus each year, averaging about 630,000 *l.* Three more years of deficit, and a small surplus of 82,140 *l.* in 1856–57, were succeeded by the enormous deficiencies of 9,533,795 *l.* in 1857–58, 14,996,142 *l.* in 1858–59, and 12,155,898 *l.* in 1859–60. This was reduced to 5,250,853 *l.* in 1860–61, and 1,040,760 *l.* in 1861–62, which was followed by the prosperous year 1862–63, when a surplus of 1,090,630 *l.* was realised. In 1863–64 there was a deficit of 368,974 *l.*, and in 1864–65 of 798,093 *l.*

It may not be uninteresting to note the progress of some of the principal sources of the revenue during the last 26 years.

The receipts from the land have risen from 12,273,982 *l.* to 20,095,061 *l.* The excise and forest revenue, which in 1839–40 gave 783,379 *l.*, produced 2,575,793 *l.* in 1864–65. The income and assessed taxes, or those of a similar nature, levied under the form of a tax on houses or trades, yielded from 1839–40 to 1858–59 about 115,000 *l.*, and in the last five years have been made to contribute an average of 1,560,000 *l.* to the public revenues. The customs duties, which varied from 1,170,000 *l* to 1.684,762 *l.* in the first 16 years of this period, rose to upwards of two millions sterling in 1855–56, and in 1859–60, and the following year produced 3,872,053 *l.* and 4,161,501 *l.*; on the repeal of some of the duties in 1861–62, the receipts fell, and the amount realised in 1864–65 was 2,296,929 *l.* The produce of the salt-tax fluctuated from about two to three millions sterling in the years between 1839–40 and 1859–60; in 1860–61 it rose to 3,805,124 *l*, in 1861–62 to 4,563,082 *l.*, in 1862–63 to 5,244,150 *l.*, and in 1864–65 to 5,523,584 *l.* The receipts from opium were not more than 784,266 *l.* in 1839–40, but they rapidly increased till 1846–47, when they amounted to 3,678,206 *l.*: from this time they fluctuated considerably, till in 1852–53 they exceeded five millions, and in 1857–58 attained to the sum of 6,864,209 *l.*; in 1859–60 they were a million lower, but again rose, and in 1862–63 produced no less than 8,055,476 *l.*; in the following year they were less by so great a difference as 1,200,000 *l.*, but in 1864–65 they were higher than in any year on record except 1862–63, the amount being 7,361,405 *l.* Stamps rose from 427,687 *l.* in 1839–40, at a little above which sum they remained for many years, to 530,366 *l.* in 1853–54, 622,165 *l.* in 1856–57, and 737,527 *l.* in 1859–60; they then rapidly increased to 1,182,781 *l.* in 1860–61, 1,693,217 *l.* in 1861–62, and 1,972,098 *l.* in 1864–65.

The public debt of India amounted in 1839–40 to 34,484,997 *l.*, from which time it was augmented by an average annual increase of a little under a million and a half sterling, till it was, on the 30th of April 1857, 59,461,969 *l.* An addition of upwards of 38 millions in the next three years brought it up to 98,107,460 *l.* in 1859–60, and in 1861–62 it attained its highest point, when it amounted to 107,514,159 *l.* From that date it has been gradually reduced, and in 1864–65 had been brought down to 98,477,555 *l.*

In 1841 the tonnage of all vessels entering and clearing at ports of British India was 2,181,360 tons, of which 954,586 was that of other than native craft. In 1864–65 the total tonnage was 7,920,917 tons, of which the European and American portion was 6,338,053 tons, 5,417,521 being the tonnage of British vessels.

The value of the merchandise imported into British India, by sea, was in 1841, 8,415,940 *l.*, from which amount it did not greatly vary (except in 1845, when it was 10,754,066 *l.*) up to the year 1849. From 1850 to 1853 it averaged 11 millions sterling, when it steadily increased to 15,277,629 *l.* in 1858. In the

the following year it amounted to 21,728,579*l.*, and in 1860 to 24,265,140*l.* It then fell to 22,320,432*l.* in 1862, but again rose to 27,145,590*l.* in 1864, and 28,150,923*l.* in 1865.

Of the total imports, the value of cotton twist and yarn was in 1849, 909,016*l.*, and in 1865, 2,191,440*l.* The cotton goods imported were valued in 1849 at 2,222,089*l.*, in 1858, at 4,782,698*l.*, in 1859 at 8,088,927*l.*, and in 1865 at 11,035,885*l.*

The amount of treasure imported from 1841 to 1855 varied from 1,786,253*l.* to 6,831,377*l.*, the average of the 15 years being a little over three millions and a half. In 1856 it made a sudden start to 11,301,288*l.*, and an average of 13,700,000*l.* was imported in that and the following six years. In 1863 another great increase occurred, the value of the treasure taken to India in that year being 20,508,967*l.*; in 1864, 22,962,581*l.*; and in 1865, 21,363,352*l.*

The value of the exports was 13,822,070*l.* in 1841, 18,705,439*l.* in 1851, and 34,090,154*l.* in 1861. In 1863 it had risen to 48,970,785*l.*; in 1864 it was no less than 66,895,884*l.*; and in 1865, 69,471,791*l.*

The chief article of export is raw cotton, the trade in which has sprung up to a remarkable extent since the commencement of the American war. In 1849 the value of the quantity exported was 1,775,309*l.*, and in 1859 it had gradually risen, after many fluctuations, to 4,094,100*l.* In the four following years the value was declared at 5,637,624*l.*, 7,342,168*l.*, 10,203,470*l.*, and 18,779,040*l.* In 1864 it rose to 35,864,795*l.*, and in 1865 to 37,573,637*l.* Next to the trade in cotton, the most valuable article of export is opium, which has risen from 5,772,526*l.* in 1849, to 9,911,804*l.* in 1865. Rice was exported in 1865 to the value of 5,573,537*l.*, the return for grain of all sorts in 1849 not having exceeded 858,691*l.* Seeds of all kinds exported in 1865 were valued at 1,912,433*l.*; jute at 1,307,844*l.*; raw silk at 1,165,901*l.*; and wool at 1,151,002*l.* In all these articles the trade has grown up to its present dimensions within recent years; but that in indigo, on the other hand, has been nearly stationary, the value exported in 1849 being 2,093,474*l.*; in 1856 (the highest year), 2,424,332*l.*; in 1865, 1,860,141*l.*; and the average of the 17 years being a very little below 2,000,000*l.* The only article of importance which shows a material falling-off is sugar and sugar-candy, the average of which was from 1849 to 1853, 1,819,000*l.*, and from 1862 to 1865, only 651,000*l.*

The total amount of money coined at the several Indian mints, from 1841 to 1865, is 146,470,980*l.*, in the proportions of 1,621,637*l.* of gold coin, 142,308,499*l.* of silver, and 2,540,844*l.* of copper.

The emigration returns commence from the year 1856, and, during the 10 years which they include, 234,948 persons have embarked from India, of whom 155,000 proceeded to Mauritius, 54,512 to the West Indies; and the remainder to Réunion, Natal, or British Guiana.

The paid-up capital of the several railway companies in India amounted on the 31st of December 1865 to 60,039,043*l.*, of which 58,679,990*l.* had been expended. The amount of interest paid up to the same date was 15,965,856*l.* The length of line open on the 30th of June 1865 was 2,747 miles, and the net receipts for the year ending on that day, after defraying the working expenses, were 1,409,632*l.*

The receipts of the post-office in India amounted to 362,333*l.* in 1865, or upwards of 60,000*l.* less than the expenditure.

The European troops in India in the year 1839-40 numbered 35,604, and the Native forces 199,839. In 1842-43 there were 46,726 Europeans, and 220,947 Natives. This proportion was not materially changed down to 1856-57, when the number of European soldiers was 45,522, and of natives 232,224. In 1858-59, however, there were 106,290 Europeans, and only 196,243 Natives; but both forces have been considerably reduced since that time, and in 1864-65 the strength of the Indian armies was 71,880 Europeans, and 118,315 Native troops.

In 1857, there were 6,944 European and 8,963 Native Artillery; 3,136 European and 30,473 Native Cavalry; and 33,254 European and 185,047 Native Infantry. In 1865 the force was composed as follows:—Staff and Staff Corps, 1,406; Engineers, Sappers, and Miners, 438 European and 2,823 Native; Artillery, 13,672 European and 1,465 Native; Cavalry, 6,274 European and 14,674 Native; Infantry, 48,945 European and 99,353 Native; and 1,145 Invalids, Veterans, and Warrant Officers.

In 1858, the number of admissions into hospital among the European troops was 2,262 for every 1,000 men; the deaths were 57, and the number invalided 27 per 1,000. In 1865, the admissions into hospital were 1,593, the deaths 24, and the invalids 43, per 1,000 of the mean strength.

The educational statistics for past years are so imperfect as to render it difficult to draw a fair comparison which will show the progress made in recent years. In 1856-57, there were 8,490 institutions under the superintendence of the Government, with an average attendance of 190,656 pupils; in 1864-65, there were 17,117 institutions, and the number of scholars was 435,898. The expenditure by the Government in the last mentioned year was 391,277 *l.*, and that from private sources was 222,517 *l.*

About 30 millions of money has been spent on works of public improvement between the years 1853-54 and 1864-65, or an average, if allowance be made for the interruption of all progress during the mutiny, of about three millions per annum; the outlay on original works (excluding repairs) in each of the years 1863-64 and 1864-5 was upwards of 2,700,000 *l.* These amounts do not include the expenditure on military works or civil buildings, which, if added, would raise the total sum annually laid out at present to nearly four and a half millions sterling; nor is any mention here made of the allotments for State expenditure on guaranteed and aided undertakings, loss by exchange, grant from the 1 per cent. income tax exclusively devoted to local works, or the unappropriated grant remaining at the disposal of the Government for special distribution wherever most needed.

The last of these tables relates to the working of the telegraph, the first 82 miles of which were opened in 1851-52, while in 1863-64 there were 11,736 miles of wire in working order.

Henry Waterfield.

India Office, April 1867.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

OF THE

MORAL AND MATERIAL PROGRESS

OF

INDIA,

1865–66.

(Presented pursuant to Act of Parliament.)

Ordered, by The House of Commons, *to be Printed,*
2 *May* 1867.

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EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

DURING THE YEAR 1866-67

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

Ordered, by The House of Commons, *to be Printed*,
19 *June* 1868.

134453

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

DURING THE YEAR 1866-67.

INTRODUCTORY.

Since the presentation of last year's Report on the moral and material progress of India, there have been two changes in the Chief Ministerial Offices of Government in India; viz., the appointment of the Right Honourable W. R. Seymour FitzGerald to be Governor of Bombay, and the selection of the Honorable W. Grey as Lieutenant Governor of Bengal.

In order to facilitate the presentation of the Indian Budget to Parliament, and to assimilate the date for closing the year in all future accounts with that of England, it has been determined that the official year in India shall terminate on the 31st March instead of the 30th April as heretofore. It is necessary, therefore, to explain that in the comparisons drawn in reporting the progress of last year, the information for 1866-67 will be for eleven months only, while that for 1865-66 will be for the whole period of the previous twelve months.

Following the precedent established in previous reports, the subjects will be dealt with under their respective heads of Department, in nearly the same order as before; and tabular statements have been introduced, condensed from the Reports received from each presidency or province of India, with the view of showing at a glance the comparative progress or retrogression of each branch of Administration.

Amongst the important events of the past year, though out of the usual routine of administration, may be mentioned the Expedition to Abyssinia, undertaken jointly by the Imperial Governments of England and India. The object of this Expedition was to obtain the release of certain British subjects who had been made captives by King Theodorus, and whom he persistently detained in his dominions. All the arrangements were carried out by Her Majesty's Indian Authorities, and the cost (excepting the ordinary pay of the troops in the service of the Indian Government which may be employed in Abyssinia) will be defrayed by the British Treasury. It is unnecessary here to enlarge upon this subject, as all the correspondence relating to it has been presented to Parliament. While this was passing through the press, the very satisfactory intelligence has been received of the termination of the Abyssinian Expedition by the taking of Magdala, the death of King Theodore, and the total defeat of his army. The troops are now on their return to India.

In consequence of the Administration Reports for Oude, Mysore, and Coorg not having been yet received, the information for these provinces is not contained in this year's Report.

Area and Population.

Presidencies or Provinces.	Area in Square Miles.	Population.	Population to Square Mile.
Bengal	214,313	39,813,278	185·77
N.W. Provinces	83,380	30,110,615	361·12
Punjab	100,441	14,820,845	147·55
Oude	22,456	8,838,151	393·57
Central Provinces	114,718	9,104,511	79·36
British Burmah	90,070	2,330,453	25·87
Madras	141,719	24,206,509	170·80
Bombay	87,639	11,093,512	126·58
Sind	60,900	1,945,594	31·94
Coorg	2,116	119,118	56·29
Hyderabad	17,334	1,586,047	91·55
Mysore	27,000	4,013,601	148·65
Under British Administration	962,086	147,982,234	153·81
Other Native States	598,044	48,426,348	80·97
Total	1,560,130	196,408,582	125·89

The administration of British Government in India extends over an area of 962,086 square miles, according to the most recent information, and the population consists of 147,982,234, giving a proportion of 153 to the square mile. The densest population is in Oude and in the North-West Provinces, as will be seen in the accompanying statement exhibiting the subdivisions of administration, with their respective areas and population. The area of other Native States was estimated at 598,044, with a population of 48,426,348.

During the past year a census of the population of the Central Provinces was taken for the first time. The population was counted in one night, quietly and easily, the inhabitants of cities and towns co-operating most cordially in giving every assistance to the officers employed.

The population of the chief Presidency towns was as follows, distinguishing the Europeans from the Natives, and showing the proportion of males, females, and children.

	Europeans and Indo-Europeans.	Hindoos.	Mussel-mans.	Other Natives.	Total.	Males.	Females.	Children.	Total.
Calcutta	22,260	239,190	113,059	3,415	377,924	198,077	115,311	64,536	377,924
Madras	16,368	325,678	63,886	21,839	427,771	134,302	165,307	128,162	427,771
Bombay	10,306	523,974	145,880	136,402	816,562	436,305	207,285	172,972	816,562

A general census of the population throughout India has been ordered to be taken in 1871.

Legislation.

During the official year 1866-67 thirty-six Acts were passed by the Council of the Governor General of India, as compared with 29 in the previous year, besides 33 Bills brought under consideration, seven of which have been introduced, three were published but not introduced, up to 23rd March 1867, and the remainder were in course of preparation.

Of the Acts passed, eight are general, affecting the whole of British India, and not applicable to any particular subject. Four are special; and four affect one or other of the High Courts. Two may be considered personal; of these, Act IX. of 1867 provides who should be Plaintiff or Defendant in suits by or against the French Bank of Paris in India; and Act XI. of 1867 empowers the Oriental Gas Company, who have already works existing in Calcutta and its environs, to extend their operations to other parts of British India, with the previous sanction of the Local Government. The remaining Acts were passed by the Council in its capacity of Local Legislature for the North-west Provinces, Oude, the Central Provinces, and the Punjab.

By Act XXV. of 1866, the Government of India have the power to take possession of sums of money lying unclaimed for upwards of twenty years in the hands of the High Courts of the three Presidency towns, deposited in the course of suits instituted in the late Supreme Courts of Calcutta, Madras, and Bombay. Such transfer being subject to any claims which may hereafter be established to the satisfaction of the Court from which such removal shall be made.

Many improvements have been introduced into the Law of property vested in mortgagees and trustees by Acts XXVII. and XXVIII. of 1866, and they include several

several amendments which have been at various times introduced into the English Law by the Statutes known as Lord St. Leonard's Acts, and others of more recent date.

The Government of India annually sets apart the sum of 2,000*l.* for the improvement of the navigation of the Ganges between Allahabad and Dinapore; but this sum not being sufficient for a work of so much importance to the commerce of the country, the Lieutenant Governor of the North-west Provinces is empowered by Act I. of 1867 to levy tolls on steamers and vessels at such places as he may select. The tonnage on which the tolls are to be levied in the case of steamers and flats is to be calculated according to a method already in practice on the Nuddea rivers.

Certain arrangements regarding the sub-proprietary settlements and rights of occupancy in Oude were mentioned in the Report for 1865-66 (page 5). Those arrangements were made in accordance with the views taken by the Government of India, by the Chief Commissioner, and with the consent of the Talookdars. But doubts having arisen regarding the legal validity of some of the measures so provided for, Act XXVI. of 1866 was passed to give them the force of law.

In last year's Report mention was made (page 21) of an enactment passed by the Bombay Government for the suppression of gambling. In the North-west Provinces, Punjab, Oude, Central Provinces, and British Burmah, as the law existed, no persons could be prosecuted for such offence, except it could be shown under the Penal Code that their acts caused "common injury, danger, and annoyance to the public;" hence the passing of Act III. of 1867, for the punishment of public gambling, and the keeping of common gaming-houses, in the Provinces named.

To provide for the appointment of Municipal Committees in towns in the Punjab; and for the police, conservancy, and local improvements of such towns, Act XV. of 1867 enacted that such committees are not to consist of less than four members besides their presidents; the latter may be appointed by the Lieutenant-Governor himself, or be elected, as he may direct. The power of removing any member and the filling up of vacancies is also vested in the Lieutenant-Governor. The Committees are empowered, under the sanction of the Lieutenant-Governor, to impose taxes, to make rules as to meetings and business, and as to the appointment, suspension, and removal of officers and servants, to make byelaws as to nuisances, and for the registration of births and deaths. The Committees are also to provide for the maintenance of the necessary police establishments. The Lieutenant-Governor is enabled to suspend or limit any of these powers, and to cancel any of the proceedings and rules of such Municipal Committees. This Act is to remain in force for five years, and may be extended to the Central Provinces and Oude.

Act XXI. of 1867 imposes a duty or license tax on the exercise of professions and trades, and is applicable to civil servants whose annual receipts are not less than 100*l.*, and to military officers whose pay and allowances are not less than 600*l.* a year. The assessment is divided into six classes, the minimum being 20*l.* and the maximum 2,500*l.*; and the rate of assessment is fixed at two per cent. on the minimum profits of each class. Joint stock companies are placed in a separate class. The proceeds of the tax will, for the first year, be credited to the revenues of *India*. After which they will be credited to *local revenues*; a moderate proportion of expenditure on objects of a local character, now charged to the revenues of India, being thenceforward transferred to local funds.

An Act was passed, No. XXII. of 1867, modelled on certain sections of the English Common Lodging-Houses Acts, providing for the regulation of Saräis or buildings used for the shelter and accommodation of travellers, and Puraos or halting-places in the open country. It regulates the registration, cleansing, and repairing of such buildings, for the appointment of proper persons as keepers, and for the maintenance of watchmen to ensure protection to travellers from robbery. At present this Act is only applicable to the North-west Provinces, but can be extended to other parts of India.

In order to provide a speedy mode of trying and punishing offences attributable to religious fanaticism, and of rendering attempts at murder made under such influence punishable with death, instead of transportation as under the Indian Penal Code, Act No. XXIII. of 1867 was passed, but to be in force only in such of the districts of the Punjab as the Lieutenant Governor shall declare to be subject to its operation. Fanatics so convicted will be sentenced to death or transportation for life, forfeiting all their property to Government. Trials are to be held with the aid of two or more assessors, without exemption. There

is to be no appeal, and sentence is to be carried into execution at once. Jurisdiction is conferred by this Act to Commissioners of Divisions and to Magistrates with full powers, specially vested with such jurisdiction after commission of the offence. The Act to expire in ten years or earlier as the Governor General in Council may direct.

The passing of Act X. of 1865, entitled the "Indian Succession Act," having been found to affect seriously the office of Administrator-General, diminishing to a great extent the value of the rights and privileges heretofore reserved to him, it has been enacted by No. XXIV. of 1867, that the Administrators-General of India be practically replaced in the position occupied by them before and at the passing of the said Succession Act; this Act enables the High Courts of Calcutta, Madras, and Bombay to grant administrative powers to the Administrators-General of each Presidency, in respect of assets to be collected throughout the whole Presidency, thus saving the expense of applying to the local courts of the Provinces within which the assets are situated. The jurisdiction of the Administrator-General is extended by this Act to all persons besides British subjects, not being Hindoos, Mahommedans, or Buddists. In order to avoid vexatious suits, a creditor who sues an Administrator-General in respect of a debt due from an estate under his charge, will be liable to pay the costs, and will not be entitled to have the decree enforced, unless the claim shall have been duly submitted for adjustment without success; and under no circumstances will a judgment entitle him to priority over other creditors. A private executor or administrator can transfer his duties to the Administrator-General by an instrument in writing duly stamped, and notified in the local gazette. The Governor-General of India in Council is empowered to raise the commission of the Administrator-General of Bengal from three to five per cent., as charged in the Presidencies of Madras and Bombay; and he can appoint a Deputy Administrator for the North-west Provinces, Punjab, Oude, and the Central Provinces. All future Administrators-General are to be barristers of the United Kingdom, and to give security to the Secretary of State instead of to the Government of India as hitherto.

The regulation of printing presses, periodicals, newspapers, for the preservation of copies of every book published or privately printed in British India, and for their registration, has been provided for by Act XXV. of 1867.

Certain doubts having been raised as to the legality of sentences passed by the Petty Sessions Courts founded on the model of the English Quarter Sessions, it was found necessary to pass Act No. XXVIII. of 1867, in order that all sentences heretofore passed by magistrates should be deemed valid.

JUDICATURE.

Bengal.

	1865.	1866.
Cases instituted during the year	1,211	1,056
Total cases under trial	1,601	1,467
Cases disposed of	1,192	1,023
Cases pending at close of the year	409	444

	1865.	1866.
Appeals instituted	4,828	4,697
Appeals decided	5,654	4,444
Appeals pending on 31st December	1,834	2,087

THE annexed statement shows the working of the High Court of Calcutta, on its Original side, in its Administration of Civil Justice. The amount litigated in suits other than those for accounts, partition, and possession of lands was 774,064*l.* in 1866, against 780,649*l.* in 1865. The number of Judges presiding over this Court was 13.

On its Appellate side, the total number of appeals of all descriptions instituted, decided, and pending at close of the year is also shown in the accompanying statement. Considerable progress has been made in reducing the files, and the amount of arrears at the end of the year 1867 is expected to be much less.

	Suits instituted in		Suits pending at Close of Year	
	1865.	1866.	1865.	1866.
Small Cause Court Class	81,862	80,922	6,445	6,147
Other cases	56,757	60,815	17,642	18,847
Total	138,619	141,737	24,087	24,994

The operations of the Civil Courts subordinate to the High Court as shown in the margin give an increase in the aggregate number of cases instituted; but there appears to have been a decrease in the number instituted in 1866 of the Small Cause Court class, as compared with the previous year.

The

The following statement shows the aggregate working of all District Courts of the several grades for 1865 and 1866:—

In Courts of	Suits instituted, Originals and Appeals.		Suits decided on their Merits, Originals and Appeals.		Total Number of Cases disposed of, Originals and Appeals.	
	1865.	1866.	1865.	1866.	1865.	1866.
Judges - - -	19,938	20,917	11,343	9,554	12,302	10,362
Principal Sudder Ameens -	3,965	3,615	13,519	13,078	14,402	13,858
Sudder Ameens - -	4,824	4,728	4,361	4,754	4,850	5,338
Moonsiffs - - -	109,892	112,477	99,940	101,073	112,900	115,611
Total - -	138,619	141,737	129,163	128,459	144,454	145,169

The aggregate value of suits decided was 4,179,842*l.* in 1866, and 4,071,957*l.* in 1865; and of those pending in 1866, 1,932,393*l.* against 2,211,056*l.* in the previous year.

	1865.	1866.
	£	£
Net amount of Stamp Fees realised in all the Courts	182,756	180,715
Total cost of Courts -	170,495	174,195
Balance - -	12,261	6,520

The total cost of the District Courts for the last two years was less in each year than the amount realised from stamp fees, the balance in favour of Government having been 12,261*l.* in 1865, and 6,520*l.* in 1866. It will thus be seen that these Courts pay themselves from the fees realized from this source of revenue.

The receipts of the year under review, on account of fees collected in the Small Cause Courts of Calcutta, amounted to 20,523*l.*, while the cost of Establishment, including rent, was 14,125*l.*, leaving a balance of 6,398*l.* against a surplus of 7,714*l.* during a corresponding period of the previous year. The cost to Government of the Small Cause Courts in the districts was 28,105*l.* in 1866, while the net income, after deducting refunds of stamps, amounted to 22,150*l.*, showing a net charge to Government of 5,955*l.*, which was less by 2,699*l.* than the net charge incurred in 1865. The Small Cause Courts at Chittagong, Nattore, and Comercolly, have been closed from want of business, and a new Court has been established at Darjeeling.

In January 1867 the first examination was held for the qualification, admission, and enrolment of pleaders, &c. under Sec. 4. of Act XX. of 1865, in all the District Courts of Bengal, from which a great improvement was expected in the working of the subordinate courts in course of time.

Courts of Magistrates.	1865.	1866.
Number of cases tried -	69,231	80,920
Number of persons under trial - - -	130,307	150,431
Convicted - - -	63,717	76,372
Committed - -	4,156	7,560
Released - - -	58,534	62,072
Otherwise disposed of -	908	1,017
Remaining under trial at end of the year - -	2,992	3,410

A large increase occurred in criminal cases, as will be seen on reference to the accompanying table. This increase is due to the famine which existed, driving the starving population to commit robberies and thefts to an unprecedented extent.

Measures have been taken by Government for facilitating the realization of fines imposed by Criminal Courts in many districts, which will, it is hoped, prevent the large accumulation of arrears for the future.

In order to obviate the evils contingent on the practice of bringing down European subjects from long distances to be tried at the Presidency town on criminal charges, arrangements have been made for their trial under a special commission at or near the place of their alleged offences; and to meet the difficulty arising from the want of suitable accommodation at the jails of Patna, Bhaugulpore, Moorshedabad, and Dacca, which places have been selected for the sittings of such commissions, steps have been taken for the immediate construction of additional accommodation for the occupation of European prisoners.

The system of trial by jury, which has been in operation in certain districts of the Lower Provinces, is still under consideration of the Government of India. The want of success has not justified its extension to other parts at present.

In order to enable the joint-magistrate, or senior officer exercising similar powers, to render more useful assistance to the magistrate than hitherto, a plan has been devised and already adopted in several of the divisions of the Lower Provinces, for placing those officers in charge of the principal subdivision of the district in a position to exercise therein the powers of a magistrate.

Two new subdivisions have been established in Cachar and Durrung Districts, with a view of bringing the tea gardens of those parts within convenient reach of a magistrate.

North-west Provinces.

The aggregate amount of litigation in the ordinary Civil Courts of the North-west Provinces, exclusive of the High Court (late Sudder Court) and the Small Cause Courts, for 1865 and 1866, will be seen from the following table :—

Years.	Suits instituted, Originals and Appeals.	Cases decided on Trial.	Cases finally disposed of.	Pending at close of Year.
1865 - -	68,155	58,123	67,823	9,278
1866 - -	78,673	64,151	79,351	8,196
Increase -	10,518	6,028	11,528	—
Decrease -	—	—	—	1,082

The causes to which the increase in the number of suits instituted may be attributed are the larger number of districts in which land revenue settlements are in progress, the changes in the cotton trade, and more generally the increase in the wealth and prosperity of the country. It is satisfactory to note that the cases disposed of were greater in number than in the year preceding, and that the cases pending at close of the year were less by 1,082.

Of the cases instituted during the year, 65,440 were original suits, and 13,233 appeals, as compared with 57,372, and 10,783 respectively in 1865.

	1865.	1866.
For real property -	4,984	13,603
„ debts on land - -	37,752	41,737
„ other suits - -	14,297	9,514
Total -	57,033	64,854
Add cases re-instituted or excluded - -	339	586
Total -	57,372	65,440

The classification of the 65,440 original suits, as shown in the margin, exhibits a considerable increase when compared with the previous year.

Out of the large number of original suits, decided by the Moonsiffs, 31,650 related to moveable property of less value than 10*l*. Under the recommendation of the High Court of these Provinces, Government, with the view of affording relief to judicial machinery, empowered Moonsiffs to dispose of such cases as Judges of Small Cause Courts. As a proof of the necessity for such relief, out of these 31,650 suits, in 25,000 no appeal was preferred, yet in the possibility of such a contingency a full record and a minute procedure was required.

The number of cases disposed of in all the Courts were decided as shown below :—

	Ex parte.	On Confession.	By Arbitration.	Dismissed on Default.	Adjusted or withdrawn.	Decided on Merits.	Total.
1865	6,945	14,324	1,859	2,805	6,895	34,995	67,823
1866	7,851	16,043	2,151	3,214	10,094	39,998	79,351

	1865.	1866.
Cases instituted - -	125,269	133,557
Cases decided { on merits -	83,796	87,761
Cases decided { finally disposed of - -	147,460	134,071
Cases pending at close of the year - -	16,624	16,412

The miscellaneous business of the Civil Courts of these Provinces will be seen in the statement annexed, as compared with the work for 1865. It is satisfactory to observe the increase in the number decided on their merits, and a decrease in the number of cases pending.

In regard to applications for the execution of decrees, the High Court have adopted measures with the view of assisting the decree holder in the legitimate prosecution of his claims, and at the same time of preventing the decree

decree being kept suspended on the debtor for any indefinite period without real action on the part of the decree holder.

The number of persons imprisoned for debt was 586 in 1865, and the amount of debt due by them was 41,767*l.*; while in 1866 the number confined was 610, and the amount of debt 16,582*l.*

In Judges and subordinate Courts.	1865.	1866.
	£	£
Net aggregate value of stamps filed - -	89,719	100,271
Cost of Judicial Establishment - - -	101,519	97,915
Net loss - -	11,800	—
Net gain - -	—	2,356

The financial result to Government of the District or ordinary Civil Courts in the North-west Provinces was very favourable in comparison with the year preceding; and if to this be added the net gain arising from the Ameens fund, which in 1866 amounted to 5,906*l.*, it would make the total net gain to Government of 8,262*l.*

The High Court of Judicature for the North-west Provinces commenced its sittings in June 1866, superseding the functions of the Sudder Court, with which the comparative operations on its Appellate side are shown annexed. While the Appeals to be heard during the year increased as compared with 1865, the number pending at close of the year was less by 171 than in the previous year. The value of Appeal Suits has also increased largely. The average duration of Suits in the High Court for 1866 was 3 months and 28 days. The net amount realized from sale of stamps, &c. was 10,626*l.*, and the cost of establishments 36,408*l.*, leaving a net cost to Government for the Judicial machinery of the High Court at 25,782*l.* In addition to the foregoing disposition of work in this Court, 156 Miscellaneous Appeals were decided, and orders were passed in 549 miscellaneous petitions, exclusive of 174 applications for the admission of special appeals.

—	1865.		1866.	
	Regular.	Special.	Regular.	Special.
Total Appeals for hearing -	178	2,158	280	2,832
Dismissed on default -	2	117	—	181
Adjusted or withdrawn	2	16	1	13
Confirmed - -	66	843	108	1,419
Amended - -	29	39	21	54
Reversed - -	15	152	40	230
Modified - -	4	305	6	464
Total disposed of - -	118	1,472	176	2,361
Pending at close of each year - - -	60	686	104	471
Value of regular and special Appeals instituted, including those pending	£ 487,028		£ 1,182,211	
Value of those decided -	345,341		384,860	
Value of Appeals pending -	141,687		847,351	

Having dealt with the Ordinary or Civil Courts of Judicature in this Province, as well as the High Court for the Regulation Districts, it now remains to notice the operations of the Civil Courts in the Non-regulation Districts, of which there are four; and the following statement will show the number of Suits instituted, disposed of, and pending for the year 1866:—

	1866.
Total Cases instituted	16,197
Total disposed of -	15,250
Pending at close of the year - -	1,365

The number of Suits instituted exceeded that in 1865 by 5,019, and the number pending at close of year was greater by 330.

The greater portion of litigation in these Non-regulation Districts is diposed of by Uncovenanted Civil Judges, whose pay, hitherto, has been inadequate to their position and to the work undertaken by them. A scheme for the improvement of their salaries has, therefore, been approved of by the Government of India, and sanctioned by the Secretary of State. At the same time an Act has been submitted for the consideration of the Legislative Council, by which the jurisdiction of Moonsiffs will be enlarged, the Lower Appellate Courts strengthened, and the right of appeal limited, which will greatly improve the administration of Civil Justice.

—	Small Cause Courts, 4 Courts.		Cantonment Small Cause Courts, 11 Courts.
	1865.	1866.	1866.
Total number of cases under trial	6,417	6,885	4,343
Ex parte	1,113	1,168	843
Confession	2,049	2,206	1,107
Arbitration	75	60	159
Decided on merit	1,876	2,149	1,083
Dismissed on default	228	242	342
Adjusted or withdrawn	943	967	689
Total cases disposed of	6,284	6,792	4,223
Cases pending at close of year	133	93	120

The operations of the Small Cause Courts, of which there are four in number, will be seen in the accompanying comparative table. Eleven Cantonment Small Cause Courts have also been established under the provisions of section 6, Act XXII. of 1864, the business of which has been disposed of with promptitude. Nearly half of the suits instituted were for recovery of shop debts. The total net receipt from stamps and other sources was 722*l.* The cost of these Courts amounted to 328*l.*, leaving thus a net gain of 394*l.* The average duration of cases in the four Small Cause Courts was nine days in each of the years 1865 and 1866. With the exception of the Court at Allahabad, these Courts are self-supporting, though in the aggregate the net loss to Government was 67*l.* in 1866, as compared with a loss of 138*l.* in 1865. These Courts have been now established nearly six years, and their working has been pronounced most successful. Suitors went freely to them, and the decisions appear to give satisfaction. It is in contemplation to increase their territorial jurisdiction.

Central Provinces.

The machinery for the Administration of Civil Justice in the Central Provinces remained unaltered; neither have any material changes of practice or procedure been introduced into the Courts during the year under review. Unremitting attention continued to be paid by the higher judicial authorities to the inspection and supervision of the Lower Courts, and both European and Native Judges have improved in their powers of eliminating speedily and accurately the real issues between contending parties.

Years.	Number of Original Suits.	Value of Property or Rights involved.
		£
1861	19,288	119,333
1862	26,931	Not stated.
1863	28,655	227,121
1864	32,655	200,296
1865	39,188	312,449
1866	45,250	487,997

Accompanying is shown the number and value of suits instituted during the past six years. The large and progressive increase may be taken as some index of the advancing prosperity and wealth of the people, and of the growing popularity of the Courts.

The increase in litigation is reported to be in nearly the same proportion throughout almost every class of suits. By far the largest number, however, was under the class entitled "Debts on unregistered bonds," being 20,612 in 1865, and 21,517 in 1866. In about one-fifth of the whole civil litigation, as in last year, the suits were between money-lenders and agriculturists. The number of cases in which bankers or traders sued each other fell from 4,028 to 3,327 in 1866. This decrease is assigned to the comparative quietude of the cotton market, the great fluctuations of which during 1865 drove traders of a certain class to the Courts. Out of 45,594 suits for disposal during 1866, only 1,268 cases were pending at its close. The average duration of each suit was 14 days, and in no district of these Provinces was the average duration above 25 days.

The mode in which cases were disposed of may be classified thus:—Of total cases 15 per cent. were struck off on default; 8 per cent. were settled out of Court by compromise; 34 per cent. were by confession; 11 per cent. were decided ex parte; nearly 1 per cent. referred to arbitration; and 23 per cent. were decided on merits. It may be worth remarking that these per-centages were almost identical with the decisions of last year.

Attention has been given to suits referred to arbitration; and the reason assigned for so few cases being submitted to this mode of settlement is that the people know that they can obtain it if they wish, but they prefer the authoritative decision of the officers of the Court.

The Appellate business during the years 1864 and 1865 showed a decrease, but it rose in the year 1866, having been 1,207 against 994 in the preceding year. The number of Appeals, however, was still inconsiderable when compared with the number of cases which were contested.

Among

Among the miscellaneous business that came before the Courts, 21,050 applications for executions of decrees were recorded, as against 21,795 in the preceding year. Greater attention is being bestowed on the disposal of the miscellaneous work by the Courts, an improvement being much needed in this branch of civil business.

The Small Cause Courts continue to work with great popularity and usefulness. The number of suits in these Courts was 11,143, as compared with 4,782 in the previous year. Of this large increase, 7,000 suits were laid in the Small Cause Courts of Nagpore and Jubbulpore.

A considerable number of candidates have passed the prescribed examination, and have received certificates as authorized pleaders during the year.

	1864.	1865.	1866.
Cognizable cases - -	18,900	22,297	23,797
Non-cognizable cases -	11,754	11,279	11,359
Total - -	30,654	33,576	35,156

The tendency towards increase in the number of criminal offences was still apparent. A comparison for the last three years shows an increase of 1,580 on the preceding year, and of 4,502 over that of 1864. The increase was still confined to the class of minor and less heinous crimes. The general increase in reported crime is, in a large measure, due to greater activity on the part of the Executive in bringing offenders to justice. With regard to the worst kind of crimes the increase was but small, being 238 in 1866 against 229 in the year preceding; while in 1863 it was 340.

In minor crimes, and under the head of "Theft" and "Housebreaking," the returns show an increase in cases reported of 548 over those in 1865, and of 2,080 over those in 1864. The value of property stolen was 44,353*l.*, while in 1865 it was 46,613*l.*, and the proportion recovered was 33 per cent. as compared with 31 per cent. in the year before.

	1865.	1866.
Number of persons under trial - - - -	38,095	41,905
Remaining under trial at close of the year - -	117	209

The despatch of business in Magisterial Courts has been conducted with promptitude, as may be seen from the comparatively few persons under trial at the close of the year.

There are now 62 honorary magistrates in these Provinces, who decided as many as 4,464 cases during the year, as compared with 4,114 in 1865. Most of the Natives, who are persons of rank and position in the country, are very popular as magistrates, and are reported to have acted in a most praiseworthy manner in the exercise of their judicial powers, affording valuable aid in Criminal administration.

Three important changes occurred during the past year in the Judicial system of the Punjab. A Chief Court, with two Judges (one a barrister), was established to supersede the Court of the Judicial Commissioner, and was opened on the 19th of February 1866. The Code of Civil Procedure of the Regulation Provinces (Act VIII. of 1859) was extended to the Punjab under certain restrictions, and the admission of Pleaders and Mookhtars to practise in the courts. Punjab.

	1865.	1866.
Suits pending - -	4,057	6,491
Suits instituted - -	140,315	165,970
Total for hearing -	144,372	172,461
Suits diposed of - -	137,881	166,558
Pending at close of the year	6,491	5,903

The number of Civil Suits instituted was large as compared with other Provinces, and shows also a considerable increase over the number instituted in the previous year. This increase, which was but nominal, was chiefly observable in that class of cases known under suits regarding land paying revenue to Government, and arises from the working of Act XIX. of 1865, by which suits for land or revenue, rent or produce of land, were transferred from the Revenue to the civil side of the District Courts, the returns for which have hitherto been dealt with differently; but, deducting this class of suits, there still appeared to have been an increase of 8,537 in the number of Civil Suits instituted, over the previous year. Litigation has been steadily increasing for many years past in the Punjab. The additional wealth of the Province, combined with the greater facilities for resorting to the Civil Courts, may account in a great measure for this growth.

Of the suits disposed of, 63,798 were decided on their merits, against 51,537 in 1865, and the total value of suits in all the Civil Courts was 876,039*l.*, giving an average value of *5l.* 4*s.* for each suit in 1866, against an average value of *5l.* 10*s.* in 1865. The total cost of suits amounted to 83,219*l.*, or 9·5 per cent. on total value litigated. The average cost of each suit was 8*s.* 9*d.*

Included in the Civil Courts just mentioned are eight District Small Cause Courts, and a similar number of Cantonment Small Cause Courts, respecting which, generally, favorable testimony continued to be borne, by the district and divisional officers, as to their efficiency and popularity among the community.

	District Small Cause Court.	
	1865.	1866.
Cases for hearing - -	23,231	25,087
Cases disposed of - -	22,895	24,811

The operations of the District Small Cause Courts showed a considerable increase, both in the number of cases for trial, and in those disposed of, the average duration of each case varying from 4 to 11 days. In the Cantonment Small Cause Courts 6,509 cases were disposed of, as compared with 5,859 in the preceding year. Of the cases disposed of, 36·3 per cent. were decided on their merits in the District Small Cause Courts, and 23·8 per cent. in the Cantonment Courts; 27·2 per cent. were decided on confession in the former and 41·2 per cent. in the latter Courts.

	1865.	1866.
	£	£
Total income - -	9,976	10,511
Total expenditure - -	11,248	11,034
Net loss - -	1,272	523

The financial working of these Small Cause Courts in the districts may be seen in the accompanying table, and it is satisfactory to find that the net loss was considerably less than in the previous year.

	1865.	1866.
Number of appeals for hearing - - -	13,892	19,345
Total disposed of - -	12,028	17,073

The appellate business of the Civil Courts of all grades in the Punjab is exhibited annexed, and includes the Chief Court in 1866 as compared with the Court of the Judicial Commissioner in 1865. The average duration of each appeal was 42 days against 34 in 1865. The additional number of appeals for hearing would naturally arise from the increase of civil business previously mentioned.

There were also 92,382 miscellaneous cases for disposal, including those pending from previous year. Of these 72,151 were applications for execution of decrees, and 672 applications for leave to sue *in formâ pauperis*. While 88,939 decrees were granted during the year, the number of applications made to the Court for execution was 66,344. The total amount realized in execution of decrees was 157,050*l.*, or 36 per cent. of the aggregate value of decrees put in execution.

Rules were also issued for the qualification, admission, and enrolment of proper persons as Pleaders in the Chief Court and the Subordinate Courts in the Punjab. Eleven persons have been admitted as Pleaders, and seven as Mookhtars. Besides these there were several gentlemen practising in the Chief Court and Subordinate Courts who have been admitted as Advocates or Pleaders of the High Courts, and as such were qualified to practise in the Punjab Courts, without requiring to be enrolled in the Chief Court.

The law regulating the Administration of Civil Justice in the Punjab has now become more closely assimilated to that in force in the North-west Provinces. There yet remain some points of distinction between the Judicial systems of the two Provinces.

	1865.	1866.
Cases brought to trial:		
Bailable - - -	30,935	33,710
Not bailable - -	13,488	13,047
Total - -	44,423	46,757
Persons brought to trial -	91,159	103,678

The original Criminal business of this Province showed an increase in the number of cases and in the number of persons brought to trial. This increase has been steadily advancing for some years past, particularly in the number of prosecutions in bailable cases, and was attributable, in the first place, to the fact that many offences of a very petty character, which used formerly to pass unnoticed

unnoticed, were now brought into court and shown in the returns. In the next place, the tendency of recent legislation has been to create new offences: of this the Stamp Act may be mentioned as an instance. Another cause was the increased facility which has been afforded in recent years for instituting such prosecutions; in regard to which, the Judges of the Chief Court observe that, "so far as this "increase evinces a readier disposition on the part of the people to refer their "quarrels to the authorized tribunals instead of seeking redress by unautho- "rized means, it is a matter of congratulation rather than regret. But there "is reason to fear that the facility and cheapness with which the Criminal Courts "can be resorted to has tended to foment petty litigation, and has had a "demoralizing influence among the people. To unscrupulous individuals a "prosecution in the Criminal Court offered the readiest means of gratifying "private animosity, or compelling an adversary to yield to an unjust or doubtful "demand. Under these circumstances the Court observe with satisfaction that "in the recent Act amending the Stamp Law provision has been made for the "imposition of a Stamp duty in this class of cases."

	1865.	1866.
Suits filed -	8,547	10,099
Value of property litigated -	£ 145,326	£ 190,646

Hyderabad assigned districts.

A considerable increase is noticeable in Civil litigation in the Hyderabad assigned districts when compared with 1865. The excess in the number of suits filed amounted to 1552, and in the value of property litigated to 45,320*l.* The average value of each suit rose from 17*l.* 7*s.* 6*d.* to 19*l.* 11*s.* 5*d.* The average duration of suits was 47 days, as compared with 85 days in 1865, thus exhibiting a marked improvement in the time occupied in the trial of Civil cases in these Courts. The number of cases disposed of was 9,740, of which 6,970, or 71·56 per cent., were decided on their merits; 2,444, or 35·05 per cent., were compromised; 201 were dismissed on default; and 125 were withdrawn by the Plaintiff.

	1865.	1866.
Appeals for hearing -	1,066	1,009
Decided on merits - -	796	810
Otherwise disposed of -	137	115
Total -	933	925
Pending at close of the year	133	84

The business of the District Appellate Courts in this Province exhibited a decrease in the number of appeals for hearing when compared with the previous year; but the number of cases decided on their merits had increased, thus leaving a less number pending at the close of the year. The average duration of appeal suits in District Courts fell from 87 to 65 days in 1866, and in the Chief Commissioner's Court from 206 to 62 days. As many as 814 persons were imprisoned for debt during the year under review.

	1865.	1866.
Criminal offences -	7,756	9,558
Convictions -	4,279	5,474

A corresponding increase appeared in the aggregate of reported Criminal Offences, and in the number of convictions; this was not so much due to any real increase in crime, as to a greater willingness, apparent on the part of the people, to report offences, and to the improved efficiency of the police. The results of trials show that out of 5,437 reported number of cases, the per-centage in which no apprehensions were made was 19·30; the per-centage of convictions was 51·58; and the per-centage of acquittals 28·82. Of the 5,474 convictions by the magistrates 3,607 were fined, 92 were flogged, and the rest were imprisoned. Thus it will be seen that fine has been resorted to liberally, but the Whipping Act had not been so generally enforced. The attention of the district officers had been called to this fact.

British Burmah.

In British Burmah the Courts constituted for the Administration of Civil Justice consisted of two Recorders Courts and two Small Cause Courts, one of each is located at the chief seaport towns of Rangoon and Moulmein respectively. In addition to these there are 116 Courts of six classes, for the districts in the interior.

Recorders Courts.	Original Suits.		Miscellaneous Cases.	
	1865.	1866.	1865.	1866.
Number pending -	31	71	19	15
Instituted during the year -	411	393	438	512
Total - -	452	464	457	527
Suits disposed of - -	381	391	442	504
Pending at close of the year	71	73	15	23

From the accompanying table it is apparent that there has been an increase in the number of suits instituted, disposed of, and pending in the Recorders Courts of these Provinces. Until October 1866 there was but one Recorder, but on that date a separate Recorder was provisionally appointed for Moulmein. Of the original suits instituted in these Courts 31 were suits for immoveable property, 354 suits were unconnected with immoveable property, and 8 were suits for new trials and reviews of judgment under Sec. 28. of Act XXI. of 1863.

Small Cause Courts.	Original Suits.		Miscellaneous Suits.	
	1865.	1866.	1865.	1866.
Number pending - -	125	129	13	13
Suits instituted during the year - - - - -	4,637	4,581	1,778	1,921
Total - -	4,762	4,710	1,791	1,934
Suits disposed of - -	4,633	4,551	1,778	1,890
Number pending at close of the year - - -	129	159	13	44

In the Small Cause Courts the number of Original Suits instituted and disposed of in the year under review have decreased, as compared with 1865; and the number of suits pending have increased. This result chiefly applies to the Court at Moulmein. The separate Judgeships of these Courts has been abolished, and the business is conducted by Registrars. The average duration of suits in these Courts was eight days.

The value of suits in both Courts amounted in 1865 to 174,368*l.*, and in 1866 to 161,237*l.* The value of stamps filed was 6,284*l.* in 1865, and 6,445*l.* in 1866, The total cost per annum of the establishment of these Courts was 6,618*l.*

The operations of the District Courts in the interior of these Provinces showed a decided increase in the aggregate of all cases before these Courts, this increase being mainly in Original Suits.

	1865.			1866.		
	Appeals.	Original.	Miscellaneous.	Appeals.	Original.	Miscellaneous.
Number of cases pending -	138	399	99	132	324	47
Number instituted during the year - -	1,421	17,421	6,992	1,489	19,590	7,169
Total	1,559	17,820	7,091	1,621	19,914	7,216
Cases disposed of - -	1,427	17,496	7,044	1,535	19,627	7,156
Number pending at close of the year - -	132	324	47	86	287	60
	£			£		
Amount of property litigated in Original Suits -	163,148			140,335		
Value of Stamps - -	8,228			9,999		
Costs of every description in Original Suits disposed of - - - -	13,447			17,163		

The value of property in Original Suits brought before the Courts was less by 22,813*l.*, while the value of stamps filed was greater by 1,771*l.* This apparent anomaly was explained by the fact of there having been a decrease of a large amount, both in the value of suits and of stamps filed, in the Tenasserim Division, while in the Pegu Division their value was correspondingly great. The decrease above mentioned was assigned to the stagnation in the trade of teak timber, the chief staple of commerce in this part of the country. Of the Original Suits disposed of 61 per cent. were decided on merit, against 83 per cent. in the year preceding; and in the disposal of the 1,535 Appeals, 86 suits were appealed to the Commissioners of Divisions from Courts immediately under them, 77 from Courts of Assistant to Deputy Commissioners, and 1,372 from Courts of the three grades of Extra Assistant to Deputy Commissioners.

In

In the Chief Commissioner's Court the total number of appeals and miscellaneous cases pending and instituted during the year was 51; the number of cases disposed of was 40, leaving 11 cases pending at the close of the year. The average duration of suits disposed of in this Court was two months and five days.

Eleven District Moonsiffs Courts were abolished in the course of the past year. In order to facilitate the disposal of arrears of Civil business in some of the Subordinate or District Courts, it was found necessary to relieve certain Principal Sudder Ameens, and such Judges of District Small Cause Courts as had been invested with powers of a Principal Ameen of Criminal cases. The jurisdiction of the Civil and Sessions Court at Berhampore has been extended. Madras.

	1865.	1866.
Total Suits for hearing	231,718	232,740
Decided on merits -	103,618	109,128
Dismissed on default -	14,406	13,728
Adjusted or withdrawn -	47,348	43,747
Otherwise disposed of -	4,025	3,293
Total disposed of -	169,397	169,896
Pending at close of the year - - - -	62,321	62,844

The aggregate of Original Jurisdiction in all the Courts of the Madras Presidency, including Small Cause Courts, but exclusive of the High Court, will be seen in the accompanying statement. The total value of property at stake, pending at the close of the year, amounted to 1,748,407*l.* against 1,502,243*l.* at the close of 1865. Of the cases decided on merit, 87,576 were in favor of Plaintiffs, and 21,552 in favor of Defendants. 13370 were decided by European Judges and 156,526 by Native Judges.

The description or nature of Original Suits instituted for the two years 1865 and 1866 is shown below.

—	Connected with land revenue.	Otherwise connected with land.	Houses or other fixed property.	Debts and wages.	Caste, religion, &c.	Indigo, sugar silk, &c.	Total.
1865 - -	5,646	13,395	5,192	141,156	458	2,282	168,129
1866 - -	5,775	13,583	5,530	141,070	416	2,126	168,500

	Appeals Regular and Special.		Original Suits.	
	1865.	1866.	1865.	1866.
For hearing - -	16,226	17,456	456	533
Disposed of - - -	9,342	10,140	356	449
Pending at close of the year	6,884	7,316	100	84

The aggregate of Appellate Jurisdiction in the various Courts for the same periods will be seen from the annexed statement. The total value of Appeal suits pending at close of each year was 150,828*l.* in 1865, and 201,973*l.* in 1866.

The operations of the High Court on its Original side showed an increase in the suits instituted and disposed of, and a decrease in the number pending at the close of 1866, as compared with that of the year previous. Of the suits disposed of, 292 were decided on merit, against 246 in 1865, and 118 withdrawn; as compared with 82 in the previous year; the remaining suits were dismissed on default.

Appeals.	1865.		1866.	
	Regular.	Special.	Regular.	Special.
Total appeals for hearing	135	817	142	839
Appeals disposed of -	87	544	111	660
Pending at close of the year	48	273	31	179

On its Appellate side there was an increase in the number of Appeals for hearing, both regular and special; and in the number of Appeal suits disposed of. The average duration of suits disposed of was three months and one day, while in 1865 it was four months; and the total value of suits pending at the close of 1866 was 183,766*l.* against 140,112*l.* in the preceding year.

There were also 326 Civil Petitions brought before the High Court, of which 271 were disposed of, against 262 in the previous year.

Of the Criminal Petitions, 215 were presented, 196 of which were disposed of, against 185 in the previous year. Eighty-four trials, in which sentence of death was recorded by the Sessions Court, were referred to the High Court for confirmation. Of these, 71 sentences were confirmed, 10 modified, and three released.

The total number of criminal offences reported and complained of in 1866–67 was 147,291; and 318,522 persons were believed to have been concerned in or were charged with offences; 97,757 cases, or 66·4 per cent., were brought to trial; and 188,854 persons were arrested or summoned to answer accusations. In 77,449, or 79·2 per cent., of the cases tried, 131,252 persons were convicted; and 25,196 cases, 17 per cent. of all charges preferred, went by default, were withdrawn, or were otherwise disposed of. The value of property lost amounted to 132,702*l.*; of which 31,424*l.*, or nearly 25 per cent., was recovered, against 20 per cent. in 1865–66.

The increase in the total number of offences and charges preferred, of 7·7 per cent. as compared with the previous year, was chiefly due to a large increase of offences against property without violence, and to increased action on the part of heads of villages under special laws in regard to petty offences.

Of the number of persons arrested 69 per cent. were punished, against 66 per cent. in 1865–66.

The distress consequent on the prevalence of high prices during the latter part of 1866 produced an increase of crime. In the month of September grain riots occurred in the presidency town of Madras, causing considerable uneasiness to the inhabitants; these disturbances were, however, promptly suppressed.

It is satisfactory to note that whereas the convictions among European offenders amounted to 319 in 1865–66, there were only 197 in 1866–67. A committee had been formed at Madras, with a view of devising some means of checking the increase of European vagrancy, to which allusion was made in last year's report.

Bombay.

	1865-66.	1866-67.
Total appeals for hearing -	1,129	1,107
Appeals disposed of -	795	793
Appeals pending at close of the year - - -	334	314

The operations of the High Court on its appellate side are exhibited in the comparative statement annexed. The number of appeals, regular and special, on the files for hearing were less than in the previous year; while the actual work disposed of was nearly the same, and those pending at the close of the year were less than at the end of 1865–66. In addition to these, there were 923 applications for admission of special Appeals, of which 894 were dealt with during the past year. Of the miscellaneous applications 1,447 were granted and 199 were rejected.

In its original jurisdiction the number of cases instituted was 1,617, as compared with 1,734 in 1865–66; besides which there were 42 and 37 appeals from Courts of the Divisions respectively instituted. The causes disposed of amounted to 1,579 in 1865–66, and 1,552 in the year under review. There were also 1,210 motions and 2,031 Orders in Chambers, against 869 and 1,208 respectively in the previous year. The applications for probate and administration amounted to 667, against 587 in the year 1865–66.

	1865-66.	1866-67.
Number of Suits for hearing	182,441	163,854
Suits disposed of - -	141,912	138,852
Suits pending at close of the year - -	40,529	25,002

The working of the Civil Courts in the Regution districts of the Bombay Presidency shows favourably when contrasted with the operations of the previous year. Of the suits decided 11,991 were connected with land against 11,129 in the year preceding; the remaining suits were concerning debts, wages, &c. The average duration of time taken in these courts for cases decided was five months and four days.

During the past year an important change had taken place in the judicial administration of Sind. By the passing of Act XII. of 1866 (Bombay) the constitutions of the Courts in that Province have been legalized, and the proceedings of certain officers have been made valid. The judicial functions of the Commissioner have been abolished, and he is now enabled under this Act to appoint Judges of the subordinate Courts, and to prescribe the mode of executing decrees against certain privileged Sirdars.

In all the Civil Courts in Sind, the number of suits on the files, including arrears, was 10,198, and the number decided 9,525; while in the preceding year the corresponding numbers were 11,028 and 10,024 respectively. The value of suits in 1866 was 86,055*l.*, as compared with 55,977*l.* in 1865.

The

The number of appeals filed and in arrears amounted to 347, and the number decided 247, leaving a balance of 100 for the following year; while the appeals pending at close of 1865 were 94.

The following table will exhibit the operation of the Small Cause Court at Bombay during the past two years:

Years.	Number of Suits instituted.	Amounts litigated.	Fees to Credit of Government.	Number of Judgments given.	Amounts received in Cases compromised and decided.	Proportion of the foregoing paid to Suitors.
		£	£		£	£
1865–66	22,362	256,403	25,648	14,483	49,356	48,321
1866–67	22,433	272,881	26,595	14,179	50,770	50,173

from which it will be seen that there has been a considerable increase in the business and receipts of this Court during the 11 months of 1866–67, as compared with 12 months of the previous year. The entire expense was given at 15,372*l.*, which, when deducted from the net receipts shown at 26,595*l.*, left a surplus to credit of the Court of 11,223*l.*

	1865–66.	1866–67.
Number of suits instituted, including arrears - -	12,903	13,986
Suits disposed of - -	11,516	13,306
	£	£
Total receipts -	7,896	9,264
Charges for maintaining these Courts - -	4,841	5,569
Net receipts - -	3,055	3,695

Besides this Court there are four other Small Cause Courts in this Presidency. The receipts in three of which exceeded the cost, namely, Poona, Ahmednugger,. and Ahmedabad; but in Belgaum the deficit amounted to 534*l.*, against 249*l.* in the preceding year. The working of these Courts was very satisfactory; for while the business had increased, and a great number of cases disposed of, the balance at the close of the year under review was less than in the previous year.

The average cost of each suit was 16*s.* 3*d.*, and the average duration of each suit was only 24 days.

The creation of the Small Cause Court at Poona has supplied a great want; the number of suits filed in this Court alone was more than was filed in four Moonsiffs' Courts, and therefore supplanted the duty of the latter entirely.

With regard to the Criminal administration of the High Court on its appellate side in Bombay, there were 1,090 cases disposed of, being an increase of 48 over those in 1865–66, and on its original side there were three motions and 131 cases disposed of during the 11 months under review.

There has been also an increase in the number of criminal offences committed throughout the Courts of the Regulation Districts of this Presidency, including the Sessions Courts. Out of 1,290 preliminary inquiries instituted by the Magistrates in these Districts, 807 cases were committed, and 483 were discharged for want of evidence. The largest number of trials was under the head of "hurt," "criminal force," and "assaults;" the increase under these heads having amounted to 1,512. In the convictions of the more serious offences, the increase appeared under the heads of "culpable homicide," "attempts to murder," and "dacoity."

	1865–66.	1866–67.
Number of offences - -	29,069	37,331
Number of persons tried -	53,307	69,470
Number convicted - -	30,096	37,988
Do. acquitted or discharged - -	23,211	31,482

In Sind the criminal offences amounted to 12,938, in which 19,206 persons were more or less concerned, while in 1865, 18,820 persons were brought to trial; the number convicted was, however, 9,164, being 386 less than in the previous year, but those acquitted were considerably more, the numbers being 8,956 in 1865, and 10,042 in 1866. The nature of the increase in crime in Sind was similar to that already mentioned in foregoing paragraph.

Bengal.

Police.

	Total Strength.	Total Cost.
		£
Regular police - -	25,572	420,514
Municipal police and Chowkeydars - -	7,370	53,512
Police employed in military duties - - -	665	10,578
Special police for the East Indian Railway - -	747	12,120
Village police - -	188,710	278,555
Total - -	223,064	775,279

The Police Force of Bengal was composed as shewn in the margin. The regular district police is paid entirely out of the Imperial revenues; the municipal police is paid partly by Government and partly from the municipal funds; and the village police, which is appointed by landowners or village communities, is paid in money, in kind, or by assignment of land on conditions of service. During the past year a Bill was introduced legalizing the amalgamation of Municipal Police and Chowkeydars or watchmen, with the Regular Police in order to reconcile certain discrepancies in the two Acts under which the former class are enrolled. Hence, therefore, the total strength of the Police Force would stand as 32,942 men, at a cost to Government of 474,026*l.*, making the average cost of each policeman about 14*l.* 7*s.* 9*d.* This was considered to be the minimum strength necessary; and indeed some difficulty was experienced, during the pressure caused by the famine, in supplying men for carrying on the extra duties entailed on the Police in the distressed tracts, consequently additional men had to be employed at a cost of 4,939*l.*

After a prolonged correspondence the East Indian Railway Company have been induced, in consequence of the numerous thefts, robberies, and other offences committed on their line, to accept the offer of the Government to place at their disposal an efficient force of police to check such crimes. The Company were to pay three-fourths of the entire cost.

In addition to the extra duties thrown on the Police during the year from causes already assigned, their general conduct and the other work performed by them has been satisfactory. The accompanying comparative table shows that the total number of cases cognizable and not cognizable by the Police was 151,935, against 154,794 in 1865. This diminution is due to the non-cognizable cases having decreased by 12,688. The total number of convictions was 96,674, against 79,302 in the preceding year. The greatest number of offences consisted of offences against property, arising from want and famine. Most of the dacoity cases also were grain robberies, committed by starving people in search of food; and the statistics of crime rose and fell according to the price of grain. Where it was ascertained that the commission of many of such offences was attributable to actual pressure from want, Government authorized a mitigation or remission of punishment in every case in which it was proved practicable; but where the crimes had been committed by habitual thieves and robbers, the sentences passed by the Session Courts were not interfered with.

	Cognizable Cases.		Non-cognizable Cases.	
	1865.	1866.	1865.	1866.
Number of cases reported -	63,289	73,118	91,505	78,817
Persons arrested - -	60,124	91,135	38,573	80,003
„ convicted and committed - -	31,240	53,602	48,062	43,172
„ acquitted - -	18,832	32,025	26,439	32,613
„ otherwise disposed of, pending trial, &c. -	10,052	5,608	14,072	4,218

	1865.	1866.
	£	£
Value of property stolen -	91,858	121,899
„ recovered	24,192	35,135

The per-centage of recovery of stolen property was 29·31 against 26·33 in 1865.

The Detective department of the Police has been, during the year under review, thoroughly reorganized, at a saving of 516*l.* per annum. By this new arrangement, which came into effect in April 1867, a certain number of men will be placed under the immediate orders of the Deputy Inspector-General of each circle, for the purpose of being solely employed in investigation of serious crimes, under the direction of the District Superintendents.

In consequence of certain dacoities having been committed, in the Nowadah subdivision of the Behar District, upon travellers and others in the neighbourhood of the Grand Trunk Road, and in the belief that the landholders had been acting in

in collusion with the robbers, Government issued a warning to them and to the villages that a tax would be levied upon them for the maintenance of extra police, for the purpose of suppressing such outbreaks of crime, should the practice be continued. This warning had the effect of putting a stop to the dacoities, which it was feared at the time would be renewed. In the meantime, orders were issued for the strict enforcement of the existing law, declaring the responsibility of landowners for reporting the congregation of bad characters on their estates; and the police officers, as well as the magistrate and his assistants, have been enjoined to visit frequently the vicinities where robberies usually occur. The police outposts will be strengthened, if proved to be necessary, so that patrols may be sent out along the principal passes of the hills.

Allusion was made in last year's Report that the cost of the Calcutta Police would be transferred to the municipality, Act No. VI. of 1867 has accordingly been passed to enable the Justices to raise the necessary taxes in support of the Municipal Police.

The terms of the transfer are, that in consideration of the municipality undertaking to bear all expenses incurred for maintenance of the existing Calcutta Pauper Hospital, the Government would on their part contribute to the cost of Police employed as guards for the Jail and other Public Offices, and one-fourth of the remaining charges, as may be sanctioned by the Government of India in their annual budget estimate.

A less expensive uniform for the Police has been sanctioned, the Native style of dress being preferred to the European.

Years.	Strength of Police Force.
1865	25,989
1866	25,242

North-west Provinces.

The strength of the Police in the North-west provinces was less by 747 than in the year preceding.

Among the changes introduced with the view of promoting efficiency, was the separation of their civil and military duties, without, however, turning the force into two distinct bodies of Police. A certain portion of the men in each district were to be armed with fire-arms and thoroughly drilled, the larger portion being employed in civil duties only, simply possessing the baton or staff.

The pay of the chowkeydars, or watchmen, has also been increased where practicable, in order to secure a greater efficiency among this class of Police. The substitution of town chowkeydars for municipal constabulary has also been carried out in many of the rural towns; a change which has proved satisfactory both to the people and to the local authorities.

A Government Railway Police has also been organized with the consent of the Railway authorities. This force is under the control of an Assistant Inspector General of Police, but at the absolute disposal of the agent of the Railway Company; it is reported that the scheme has worked successfully, and that the arrangements have proved beneficial both to the Railway company and to the public. The total cost of this force was 9,383*l.* per annum, of which 7,037*l.* was to be paid by the company.

Chief Offences.	1865.	1866.
Murder	325	291
Dacoitee and robbery	651	432
Lurking house trespass	17,727	14,701
Theft, including cattle	32,028	31,016

	1865.	1866.
Number of offences	65,585	65,413
Offences investigated	25,057	34,724
Persons brought to trial	37,038	37,861
Acquitted	12,860	10,602
Convicted	22,968	24,672
Died	297	222
Under trial	965	658

A comparison of the principal offences against life and property showed a considerable decrease in crime for 1866. The value of property stolen was 107,088*l.*, against 120,309*l.* in 1865; while the proportion recovered was 35,073*l.*, as against 33,504*l.* in the year preceding.

Decided improvement in the important matters of investigation and detection appeared to have taken place. While the number of offences was less, the proportion investigated has been considerably greater than last year. Of the number of persons brought to trial 65 per cent. were convicted against 62 per cent. in 1865. The number of deaths has been also less, and those remaining under trial at the close of the year was likewise less than in 1865.

The general progress of this branch of the Administration was considered satisfactory.

It may be well to remark here that magistrates of districts are beginning to take more interest in police work, and more readily accept their position as chief police officer of the district. As they find district superintendents more ready to recognize their authority, and more willing to work in conjunction with themselves, so the unfortunate antagonism which at one time existed is now disappearing, and the utmost harmony prevails on every side. The effect of this happy state of things cannot but be most beneficial to the Police Administration of this Province.

Central Provinces.

	1865.		1866.	
	Strength.	Cost.	Strength.	Cost.
		£		£
Regular police - -	7,527	120,666	7,516	123,832
Municipal police - -	1,518	13,693	1,458	13,693
Total - -	9,045	134,359	8,974	137,525

The total strength of the Police in these Provinces has been reduced from what it was in 1865; without, however, leading to a similar result in the cost, owing to the continued dearness of provisions. The Regular Police are paid from the general revenues, and the Municipal Force out of local funds. The cost of each policeman was during the past year about 15*l.* 6*s.* 6*d.* per head. Their general action has been satisfactory, for out of 23,888 offences reported, 12,522, or 52 per cent. of the whole, were investigated by the Police. Of the total number of persons sent up by them for trial 86 per cent. were convicted, 6 per cent. were acquitted, and 8 per cent. were released. The conduct of the Force showed also that an improvement has been made in their general efficiency.

Landholders all over the Central Provinces are becoming more alive to their police responsibilities. The material aid rendered by them in reporting crime is duly acknowledged by nearly all the Magistrates and Police Officers.

Punjab.

	1865.	1866.
Imperial Police -	15,491	15,568
Municipal do. - -	3,905	4,809
Total - -	19,396	20,377
	£	£
Cost to Government -	260,000	260,000
From municipal funds -	34,137	39,556
Total cost - -	294,137	299,556

The strength and cost of the Police Force in the Punjab for the last two years is given in the accompanying table. The cost to Government is a fixed annual sum. The proportion to population is given at 1 to 736 souls, and the average cost of each policeman was 14*l.* 14*s.* 0*d.* in 1866, against 15*l.* 3*s.* 3*d.* in the previous year.

The system of registration and surveillance of bad characters and thieving tribes, under the supervision of European officers, has proved to be of great use, both in the prevention and detection of crime. The efforts of the Police during the past year towards the detection of crime contrast very favourably with the year preceding, and speak well for their efficiency. 67·9 per cent. of cases were brought to trial, against 62·3 per cent. in 1865. The per-centage of acquittals and discharges to arrests was 25·4, against 27·8 in 1865; and 36 per cent. of property stolen was recovered, against 32 per cent. in the previous year. The conduct of the Police Force has also been satisfactory.

Hyderabad assigned districts.

	1865.		1866.	
	Cognizable.	Non-cognizable.	Cognizable.	Non-cognizable.
Offences reported -	3,344	1,151	4,160	2,104
Do. brought to trial	2,436	1,904	2,875	2,081
Persons arrested -	4,212	3,659	5,905	3,677
Do. convicted -	2,616	1,691	3,721	1,678
	£		£	
Value of property stolen	16,441		20,115	
Do. recovered -	3,552		5,934	

The efforts made in the assigned districts of Hyderabad towards the detection of crime contrast favourably, as regards the number of cases brought to trial by the Police, in comparison with the number reported to them, being 79·2 per cent. The proportion of convictions to arrests, however, does not appear to be quite so good, only 56·3 per cent. This, so far as it affects the Police, is explained by the per-centage of acquittals in cases cognizable by them, being 44 per cent. larger in those instances in which they have been taken up by the magistrates on complaint, without police inquiry, than in those in which the police

police have conducted a preliminary investigation. The establishment of village watchmen had been effected during the past year on a fixed footing, and on an advanced pay, by which great improvement in the detection of crime may be expected. The conduct and efficiency of the Police has been generally good; they are still, however, deficient in detection, and lack perseverance in grave crimes.

	1865.		1866.	
	Strength.	Cost.	Strength.	Cost.
		£		£
Regular Police - -	5,530	112,088	5,693	116,618
Village Police - - -	945	11,340	945	11,340
Municipal Police - -	523	9,196	569	10,863
Total - -	6,998	132,624	7,207	138,821

British Burmah.

The sanctioned establishment of the Police Force in British Burmah, and its cost, showed a slight increase, when compared with 1865. The cost of each policeman was, in 1865, 18*l.* 19*s.*, and in 1866, 19*l.* 15*s.* 2*d.* The increase in the numbers of the regular constabulary was due to an augmentation in the number required for Port Blair, a penal settlement in the Andaman Islands, besides additional men employed on the frontiers of Pegu during the rebellion in Upper Burmah.

Of the whole force 75 per cent. are from the people of the country, and are employed mainly in preventing or detecting crime among their own race; the remainder are natives of India, and are employed at Port Blair, in the seaport and garrison towns, and as guards over jails and treasuries. Among an exciteable race like the Burmese an alien Police would never work satisfactorily; and although it is difficult to train a Burman to regularity, or to submit to discipline, he has nevertheless some qualities valuable in a criminal officer.

The average charge of a Native Officer of Police was 201 square miles, and 5,195 of the population: that of an European Officer extended over 1,452 square miles, and 37,459 of the population. The area for each constable employed for the ordinary criminal work of the Province, after deducting those at Port Blair, and those engaged along the frontier, and as guards to jails, treasuries, &c., was 24 square miles; and excluding the municipal population provided for by the municipal police, the working District Police was as 1 to 546 of the district population.

	1865.	1866.
Bailable Offences - -	14,121	14,494
Non-bailable Offences -	6,631	7,174
Total - -	20,752	21,668

From the accompanying table it will be seen that non-bailable offences have increased 8 per cent. while the general increase on all offences was 4½ per cent. The population is reported to have increased during the same period 2·17 per cent.

Of the number concerned in non-bailable offences during the year under review 5,117 persons were brought to trial; of which 3,300 persons, or 64 per cent. were convicted or committed; the remainder were acquitted or otherwise disposed of. The average of convictions during the year preceding was 61 per cent. Of the bailable offences committed 31,669 persons were brought to trial; of whom 20,237 persons, or 64 per cent., were convicted. The value of property stolen or plundered amounted to 46,569*l.*, of which 26 per cent. was recovered, while in the previous year it was only 22 per cent. These deductions show an improvement in the exertions of the Police of a satisfactory character.

Heinous Offences.	1865.	1866.
Dacoitee - - -	125	159
Murder - -	52	52
Robbery - - -	144	173
Housebreaking - -	323	427
Receiving stolen property -	362	474

Considerable increase had taken place in crime under the head of heinous offences; which was found to have been principally in the Prome district, partly assignable to the breaking out of the rebellion in Upper Burmah, and in a measure due to the very high price of food which ruled during the year.

It is satisfactory to note that the serious disorganization of all Government rule, which had for some time existed in Upper Burmah, did not spread into the territories under British administration, although the latter became the refuge of thousands who fled for protection during the anarchy that prevailed.

The conduct of the Police was reported to have been satisfactory during the past year.

Madras.

The total strength of the Police Force in Madras Presidency was, for the eleven months ending 31st March 1867, 24,403, being 1·6 per cent. less than the permanent establishment. Their cost was, for the same period, 334,944*l.* The proportion to the population was 1 to 1,065, in towns 1 to 566, and in rural districts 1 to 1,215, respectively. The average cost per man may be stated at 14*l.* 10*s.*, or 3*d.* per head of the population. In addition to the above, there were 783 Mounted and Marine Police for the town of Madras, the cost of which (exclusive of the latter) was 19,013*l.* The receipts realized by the Marine Police fell short of the disbursements, owing to the general stagnation of trade. In previous years these receipts exceeded the disbursements.

Fifty-six per cent. of the whole Force can read and write legibly, and hundreds of men who could neither read nor write on joining the Force now write their own reports.

The Towns Improvement Act (No. X. of 1865) was introduced, during the year under review, into the principal towns throughout the Presidency, and the several municipalities have been paying 75 per cent. of the cost of their Town Police. The exertions of the Police in detecting crime and in arresting persons have been satisfactory. A large increase is noticeable in the loss of life and property by fire as compared with the previous year, and is assignable to the unusually dry season of 1866–67.

Bombay.

	1865–66.	1866–67.
Persons brought to trial -	25,763	18,459
Convicted and punished -	18,584	11,990
Acquitted - - -	6,877	6,288
Value of property stolen -	£ 26,130	£ 19,754
Do. recovered	9,374	9,400

The number of persons brought before the Police Courts in the town and island of Bombay would naturally be less, considering that the period under review was less by one month than the previous year; but it is reported by the senior Magistrate that, after making every allowance for this abbreviation of the official year, the decrease was still very striking, and was accounted for in a great measure by the diminished demand for labour having kept many of the labouring classes within their own districts in the country.

Heavy fines had been inflicted, and flogging, instead of imprisonment, had been resorted to during the year.

The proportion of convictions in these Courts was 65 per cent., against 72 per cent. during the preceding year. The value of property stolen was less by 6,376*l.*, and the value of property recovered was slightly in excess.

The chief feature in the administration of this Department has been the complete re-organization of the District Force. The salaries of all grades have been raised, and a fund has been formed providing pensions for superannuation. This new arrangement came into operation on the 1st July 1867, and, though yet in its infancy, the character of the Police has greatly improved; and it is hoped that similar changes may yet be effected among the Village Police.

A gang of professional thieves, who have been wandering about in the Province of Gujerat for many years, have nearly been rooted out. It appears, from the evidence of one of them who had enlisted into the Police Force of Ahmedabad, that this gang originally came from Tehree, and other villages in Bundelcund; that it was there assembled, and regularly organized, with a general staff and its subordinate grades. Boys only were in the ranks, who principally committed the thefts. They were never recruited except from their own villages, and allow no women in their bands. The men plan the thefts and dispose of the proceeds; the boys were lent by their parents to those in authority in the gangs on an annual payment. Any information given to outsiders was at the risk of life. This gang has visited Gujerat for 25 years; their thefts were mostly committed in the daytime, seldom after dark, and were generally of a light character, such as snatching and picking pockets, without any attempt at dacoity, poison, housebreaking, or murder. Several of this caste have since been taken into the Police Force, and by their means have greatly helped to exterminate the gang from Ahmedabad and its vicinity.

Similar arrangements have been made with the Railway Companies to those mentioned in the preceding pages for the organization of a railway police, with the view of stopping the numerous thefts and robberies that have been committed on their lines, and with satisfactory results.

In

In the Southern Division of the Bombay Presidency the increase in crime, though not so very great, was assigned to the prevalence of distress among the poorer class, owing to a succession of unfavourable seasons, bad harvests, and a continuance of high prices for the necessaries of life; in consequence of which, and in order to secure a greater efficiency in the working of the police during so critical a period, a gratuity, equal to half a month's pay, was granted to the police in those districts wherein high prices prevailed.

Jails.

Bengal.

		1865.	1866.
Total number of prisoners in custody		90,333	114,870
Number admitted into jails during the year		72,617	95,951
Disposal of prisoners.	Executed	70	57
	Died in prison	1,129	2,347
	Escaped	291	457
	Released	55,335	72,922
	Remaining in confinement	33,508	39,087
Total		90,333	114,870

	1865.	1866.
Daily average of prisoners	18,842	22,151
Number sick during the year	29,516	33,531
Number discharged from hospital	27,082	27,680
Number died	1,129	2,347
Number remaining in hospital at end of the year	970	859

The number of prisoners in custody, admitted, and disposed of in 1866, showed an increase under every head except that of capital punishment. The increase in the number admitted was exceptionally high, and was mainly due to the scarcity and to the high price of food, impelling many to commit crimes in order to obtain shelter and sustenance in jails. Owing to the majority of those admitted into Jails during the year being in a diseased and debilitated state from want, and also from the overcrowded state into which the jails were consequently placed, there was an unusual high ratio of deaths to daily average strength of prisoners, which in 1866 was 10·59 per cent. against 5·95 per cent. in 1865, and 7·60 per cent. the average of the previous five years.

To obviate to some extent the evils of overcrowding in jails, the surplus prisoners were employed in out-door work, many being placed at the disposal of magistrates for employment in the cleaning of stations, and removing jungles in their vicinity. Temporary shelter was also erected at some of the large jails, where enclosed available space could be found for sheds.

Measures have been taken towards introducing a better system of education into jails. Hitherto the practice adopted was to employ the educated convicts, at odd hours, as instructors to others; but on the removal of these teachers, either by transfer or release, a complete stop was put to the course of education in that particular jail. Hence, to meet this difficulty, and in order to reduce to a manageable number the convicts receiving instruction, it has been ordered that the privilege of learning to read and write shall be confined to well-conducted prisoners, and that at each jail an educated convict, if possible, or a paid instructor, shall be employed in teaching the elements of vernacular education in a room set apart for the purpose, the expenses being borne by the Convict Labour Fund.

Results of Jail Manufactures.	Eleven-twelfths of 1865–66.	1866–67.
	£	£
Gross receipts	48,983	57,107
Deduct charges	29,624	36,817
Net profits	19,359	20,290
Net profits of preceding year	19,651	19,359
£	Decrease. 292	Increase. 931

	Eleven-twelfths of 1865–66.	1866–7.
	£	£
Total expenditure for maintenance of prisoners	101,005	139,289
Deduct income from all sources	32,283	35,551
Net cost of maintenance	68,722	103,738

Of the average daily number of prisoners employed in ordinary Jail Manufactures, there were 10,488, as compared with 9,418 in 1865–66. The result of their labours for the eleven months ending 31st March 1867, compared with eleven twelfths of the year preceding, showed an increase in profits, though the average earning of each prisoner was less than in 1865–66, being 1*l.* 18*s.* against 2*l.* 1*s.*

Assuming, as shown above, the daily average of prisoners to be 18,842 in 1865–66, and 22,151 in 1866–67; and the net expenditure incurred by Government in Bengal to be 68,722*l.* and 103,738*l.* respectively, the average cost for the maintenance of each prisoner was 4*l.* 13*s.* 8*d.* against 3*l.* 12*s.* 11*d.* in the year preceding.

North-west Provinces:

	1865.	1866.
Jail population - -	73,118	77,107
Daily average number of prisoners - -	16,417	16,840
Aggregate expenditure -	76,436*l.*	77,561*l.*
Average cost of each prisoner - - -	4*l.* 15*s.* 6*d.*	4*l.* 14*s.* 10*d.*

The net population of the jails and the daily average number of prisoners in the North-west Provinces was greater than in 1865; and while the aggregate expenditure had increased also, the average cost of each prisoner was slightly less than in the previous year. The increase in expenditure arose from the additional number of prisoners, the high price of food, extra allowances for fixed establishments, and to additions and repairs of jails. In consequence of a change in the arrangement of the duties of Police Guards at jails, there was a reduction of 3,000*l.* under the head of "Permanent Guard."

The average earnings of each prisoner engaged in manufactures was in 1865 3*l.* 13*s.* 4*d.*, and 4*l.* 8*s.* 4*d.* in 1866.

There was an increase of 151 in the number of females imprisoned during the year, who were convicted chiefly for theft or receiving stolen property. They were mainly employed in spinning and weaving while in jail, and the system of good-conduct marks has been introduced at all the Central Prisons with good effect.

It is satisfactory to observe, from the care and attention bestowed, that the health of prisoners has been generally good. The death-rate has been about 2½ per cent. Nearly one-fourth of the casualties arose among those admitted into Jails in a bad state of health.

Of the prisoners under confinement 3,270 had learned to read, and 1,452 had learned both to read and write.

Central Provinces.

There are four Central Jails in the Central Provinces,—at Nagpore, Jubbulpore, Raepore, and Hoshungabad. That at Nagpore was the most advanced, and has been already in occupation; the other three were progressing towards completion. Besides these, there are also nine District Jails, all in good state of repair.

	1865.	1866.
Daily average number of prisoners - -	4,016	3,438
Number admitted during the year - - -	9,935	9,946

From a daily average of 3,438 prisoners available for work, 1,287 were engaged in building and repairing jails during the year; whereas in 1865, out of a larger number of available prisoners, only 784 were so employed.

The average net cost of each prisoner to the State was 2*l.* 10*s.* in 1865, and 3*l.* 16*s.* in 1866.

The health of prisoners showed an improvement in comparison with the previous year; the per-centage of sick to daily average having fallen from 7·67 to 6·84, and the death rate from 12·15 to 7·44 per cent.

The net profits of the Thuggee School of Industry at Jubbulpore, which was this year placed under the charge of the Inspector-General of Jails, amounted to 2,500*l.*

Punjab.

The number of jails in the Punjab was 27, the same as in previous year; but the extent of accommodation had been increased by the erection of additional wards. Three new jails are in course of construction, and three more have been sanctioned, including one for European prisoners in the Jullundhur district.

	1865.	1866.
Total number of prisoners	31,424	31,578
Daily average number of prisoners - -	10,308	10,292
	£	£
Total expenditure on jails -	53,467	51,859
Earnings of prisoners -	17,445	17,833

The total number of prisoners, with the daily average strength, together with the total expenditure on account of jails, and the earnings of prisoners, whether from profits of manufactures or value of their labour, are given in the annexed table; whence it will be seen that the cost of each prisoner was 5*l.* 0*s.* 9*d.* against 5*l.* 3*s.* 7*d.* in 1865; the earnings of each prisoner were 1*l.* 14*s.* 7*d.* and 1*l.* 13*s.* 3*d.* respectively, making thus the net cost of each prisoner 3*l.* 6*s.* 2*d.*, as compared with 3*l.* 10*s.* 4*d.* in the previous year. These are results which may be considered satisfactory. The sanitary state of the prisoners was excellent; the average daily proportion of sick was 2·51 only; and the rate of mortality, calculated on the daily average number in confinement, was less, being 1·78 per cent. contrasted with 3·56 in the preceding year.

The

The conduct and discipline of prisoners was generally very good; no emeutes of any kind occurred. The following measures had been introduced with a view of regulating discipline on a reformatory system:

The different kinds of labour have been classified into "hard," "medium," and "light," with rules for promotion from one stage to another for good conduct and diligence:

A system of extra-mural labour, without the degrading accompaniments of the old road-working gangs, has been experimentally sanctioned for continued good conduct:

Ticket of leave rules have been partially introduced:

And rules have been prescribed for the appointment of prisoner-guards, work overseers, and ward masters, in recognition of continued good conduct and conspicuous merit.

At the end of the year, out of 9,719 prisoners, 450 could read and write; 2,134 could read only; 7,135 could neither read nor write; and 5,003 were under instruction.

Hyderabad assigned districts.

The two jails in course of construction in the Hyderabad assigned districts at Akolah and at Oomrawuttee were gradually approaching completion.

The average number of prisoners was 856, while in 1865 it was 870. Their average cost was 9*l.* 8*s.* 4*d.* against 8*l.* 13*s.* 9*d.* in the previous year, an increase which was partly due to the high prices of food. The conduct of the prisoners was good. They had been employed solely on the construction of jails, which, when finished, will enable their labour to be directed into a more remunerative channel. Only 13 deaths occurred, making the rate of mortality only 1·53 per cent.

	1865-6.	1866-7.
Average daily number of prisoners - -	3,876	3,602
Number of deaths - -	473	393
	£	£
Gross expenditure - -	22,056	23,847
Earnings by prisoners -	2,369	4,068
Net cost of prisoners -	19,687	19,779

British Burmah.

In British Burmah there has been a decrease in the average daily number of prisoners to the extent of 274, and a falling-off in the number of deaths of 80; reducing the per-centage, therefore, from 12·29 to 10·8 in the past year. An unusual mortality from contagious fever prevailed in the Rangoon Central Jail, hitherto the healthiest jail in the Burmese Province. The decrease in the number of prisoners was principally among those in custody at Moulmein. The measures taken, however, to eradicate this epidemic were most successful, for at the end of the year under review the whole body of prisoners (nearly 1,000 strong) recovered their good health. At Kyouk Phyoo also the rate of mortality became at one time heavy, but steps were taken with due promptitude for improving the health of the prisoners.

The cost of the maintenance of the Jails has increased by the sum of 1,791*l.*, arising from an additional outlay for Establishments, and for extra rations to prisoners in the Jail at Rangoon. The average cost of each prisoner was 5*l.* 13*s.* 4*d.* in 1865, and 6*l.* 12*s.* 4*d.* in 1866. But if from the gross expenditure the earnings of the prisoners be deducted, the net cost of each prisoner will be reduced to 5*l.* 9*s.* 9*d.* for the past year.

	1865-66.	1866-67.
Daily average number of prisoners in confinement.	8,150	9,808
	£	£
Total expenses incurred -	48,694	72,996

Madras.

The accompanying table shows an increase in the number of prisoners confined in the jails of the Madras Presidency, and also in the expense incurred; arising from the scarcity which prevailed in Ganjam, Kurnool, Bellary, and Cuddapah districts, compelling many to commit offences with the object of securing refuge in jails. Of the expense (72,996*l.*) incurred, 49,641*l.* was for their food, including extras for the sick. The cost of each prisoner was about 7*l.* 10*s.*, against 5*l.* 12*s.* in the preceding year. In 1865-66 the rate of mortality in jails was nearly 13 per cent., but in 1866-67 it fell to 11½ per cent. Although the difference between the death rates of the two years has been small there has been an improvement in the general health of prisoners; the per-centage of deaths to strength was 76. The discipline maintained in the prisons of this Presidency was good, and the conduct of the prisoners was satisfactory.

Manufactures are now taught in many of the jails throughout the Presidency, the sale proceeds of which, after deducting cost of raw material, amounted to 1,977*l.*

At Vizagapatam, Vellore, and Madura, new jails were in progress during the year. Four blocks of radial cells had been finished and occupied in the Rajahmundry Central Jail; besides several improvements had been made to existing jails elsewhere. Many of the convicts having been placed at disposal of the officers of the Public Works Departments, towards their construction, as well as aiding in making roads, quarrying stone, brick-making, &c.

Bombay.

	1865–66.	1866–67.
Number of prisoners received, and at the close of previous year -	30,921	23,972
Daily average number -	8,347	6,388

The number of prisoners, criminal and civil, confined in the jails throughout the Bombay Presidency and in Sind was less by 6,949 than in the preceding year, and the daily average number decreased by 1,959.

The financial results of the employment of prisoners in jails showed a net profit of 5,934*l.*, against 4,594*l.* in 1865–66, being an increase of 1,340*l.* And the average earning of each prisoner employed amounted to 4*l.* 3*s.*, as compared with 3*l.* 3*s.* 6*d.* in the previous year.

	1865–66.	1866–67.
	£	£
Gross cost of maintenance -	69,673	56,400
Less value of labour -	15,298	16,200
Net cost of maintenance -	54,375	40,200

The accompanying table shows satisfactorily a decrease in expenditure towards the maintenance of prisoners. The net cost of each prisoner having been 6*l.* 8*s.* against 8*l.* 7*s.* 6*d.* in the previous year.

In the mortality among prisoners there has also been a considerable decrease. In 1865–66 the deaths amounted to 651, as compared with 339 during the year under report; of these, 91 deaths occurred in Sind. The ratio per cent. decreased from 10·04 to 5·40 in 1866–67.

Out of 15,612 criminal prisoners received into the jails only 236 were able to read, 830 to read and write, and 119 fairly educated; the remainder were totally ignorant. The practice of conveying instruction in jails by means of convict teachers is being introduced.

Military.

The effective strength of the Army in India as it stood on the 1st April 1867 was 190,957; of this number 64,109 were Europeans, and 126,848 were Natives. The military force of Bengal amounted to 105,505 men; of Madras to 47,654; and of Bombay to 37,798 men.

Europeans.	1865.	1866.
Average strength -	64,405	59,941
Admissions into hospital -	102,619	83,128
Deaths - - -	1,585	1,074
Invalided - -	2,804	2,128
Natives.		
Average strength - -	94,386	99,036
Admissions into hospital -	116,666	104,666
Deaths - - -	1,866	1,146
Invalided - - -	2,108	1,778

The accompanying statement exhibits the sickness and mortality among European and Native troops in British India during the year ended 31st December 1866, as compared with the similar period of 1865. The contrast appears very favourable, inasmuch as fewer Europeans were received into the hospitals, and there was a decrease in the number of deaths during the past year. Among the Native troops also, while the average strength was greater, yet the number of those admitted into hospitals, and of those who died, was considerably less than in the previous year. A comparison of the number invalided among Europeans and Natives ought not strictly to be taken into consideration, as the number among Madras troops has not been returned for the past year.

Allusion having been made in last year's Report (page 46) to the subject of the claims of officers to compensation for money contributed by them towards purchasing the retirement of their seniors, consequent to the changes effected in the organisation of the Army in India, it will be sufficient to state here, that the committee appointed to consider the relative merits of each officer's claim are still sitting in India, and have already in some instances granted compensation to such officers as have been found to be entitled to receive the bonus sanctioned under the instructions issued by Her Majesty's Government.

The

The Volunteer movement, also mentioned in last year's Report, has been somewhat checked in Assam, owing to the recent failures in tea. In consequence of the dissolution of the Cachar mounted Volunteer Corps, Government issued instructions for the return into store of all arms and accoutrements supplied.

The special committee appointed to consider the subject of sanitation in military cantonments in Bengal have now brought their labours to a close, by compiling an uniform code of rules, which has been confirmed by the Government of India; these rules came into operation in May 1867.

Revised cantonment rules, under the Cantonment Act, have been introduced into the military stations of Kamptee, Jubbulpore, and Saugor. Lock hospitals have been open during the past year at these places, and the strict observance of their rules have already produced a good effect upon the health of the troops in the Central Provinces.; cantonment committees had also been formed, with sufficient funds at their disposal to carry out all measures of sanitary improvement.

Exceptional measures of relief had been granted to Commissariat contractors at certain stations in the Madras Presidency during the past year, in consequence of their being unable to fulfil their engagements, arising from a failure in the crops, and the unprecedented high prices of the necessaries of life.

During the period of the famine in Orissa, measures were taken for importing supplies of grain for the use of the troops employed in that locality during the emergency, as well as for the registered camp followers and pensioners; in addition to which a temporary famine allowance had been granted to Commissariat and Hospital servants, and to Store Lascars.

The unusual sickness that prevailed at Jubbulpore among Her Majesty's 23rd Regiment of Fusiliers during the year 1866–67 attracted the attention of Her Majesty's Government, at whose request a full inquiry had been instituted, from which it appeared that the causes were primarily a predisposition on the part of the men of that regiment to take the fever, inasmuch as the Artillery quartered with that regiment did not suffer to any proportionate extent; moreover, the 23rd Regiment had marched from Agra, the climate of which is much drier and hotter than at Jubbulpore, which is surrounded by marshy ground, and had to be placed in barracks of a temporary character, having been erected subsequent to the Mutiny, though in occupation ever since. A question also was raised as to the use of quinine as a prophylactic.

The attention of the Public Works Department had been drawn to the necessity of more effectually draining the marshy nature of the vicinity of Jubbulpore, and a special committee was appointed to consider the advisability of constructing entirely new barrack accommodation, and of the best possible site for the same. In the meantime every effort was made to make the existing barracks as healthy and comfortable as possible.

There being much divided opinion as to the use of the quinine as a prophylactic, experiments were ordered to be tried at Peshawur, but the result was not satisfactory. The Government of India have accordingly approved the proposal of the Inspector General of Her Majesty's British Hospitals, that the exhibition of the drug as a prophylactic, when recommended by regimental surgeons, be left to the discretion of Deputy Inspectors General of Hospitals, who will be best able to form an opinion as to the propriety of each application, thus affording at the same time an additional security to the men of the issue of this medicine when really needed, and avoid unnecessary expense to the State.

With a view to improve the condition of non-commissioned officers and soldiers of the British Army liable to serve in all parts of the world, a Royal warrant was issued in June 1867, by which an increase of twopence a day was granted to the several rates of daily pay assigned by the warrant of February 1866; and an additional penny a day was at the same time granted to all men who shall have completed a first period of service, as a special inducement to soldiers to re-engage for a further period of service, and towards encouraging recruiting generally in the Army.

The rates of pay received by British soldiers serving in India, are higher than those granted to soldiers belonging to regiments in this country; but, in consideration of the great increase which has occurred of late years in the prices of many articles of consumption in India, Her Majesty's Government, being desirous that soldiers serving in India should participate in the benefits conferred on their comrades serving elsewhere, have issued instructions for an extension of similar privileges to regiments serving in that part of the world. The increased rates took effect from the 1st April 1867.

In anticipation of an early return to England, at the expiration of their period of service, of some of the new line regiments which had volunteered for general service at the time of the amalgamation of the Indian Army, and in the probable event of some of the officers of these non-purchasing regiments being desirous of continuing their services in India by exchanging into other of the new line regiments, Her Majesty's Government, in accordance with the sentiments of His Royal Highness the Field Marshal Commanding-in-Chief, have resolved on rescinding the order under which forfeiture of all claims to Indian pensions was involved in exchanges between officers of these regiments; and notification has accordingly been issued to all officers concerned.

It has been determined, on the strong recommendation of the Government of India, that in future the appointment of Judge Advocate General in Bengal shall be held by a barrister, who will be selected by the Secretary of State for this important office, with a salary sufficient to secure the services of a gentleman of high professional character and attainments.

Her Majesty's Government, with the concurrence of His Royal Highness the Field Marshal Commanding-in-Chief, have, at the instigation of the Government of India, agreed to restore the old number of colonels allowances to the officers of the Indian Ordnance cadres, on the understanding that no increase will be made to the establishment of colonels commandant, and that the officers succeeding to such colonels allowance will be subject to the rule already laid down by Sir Charles Wood when Secretary of State in 1861. This concession has been made in consideration of the long series of distinguished services performed by the Royal (late Indian) Artillery.

For some time past Her Majesty's Government have had under consideration the subject of an Overland Transport Service, as a better mode of conveying troops between England and India, and, with the view, therefore, of making such an arrangement complete, they have now built five large steamers for the Transport Service, three of which will ply between Suez and Bombay, and two for the European side of the Isthmus between this country and Alexandria. All the vessels have been commissioned, officered, and manned on the footing of the Royal Navy, and under the control of the Admiralty. In order to give full employment to these vessels, those on the European side of Egypt will be at the disposal of the Admiralty during two fifths of the year, and for three fifths of the year the steamers employed on the other side will be at the disposal of the Government of India. It has been decided, moreover, that none but officers and others entitled to passages at the public expense are to be admitted as passengers on board Her Majesty's Indian Troop Ships (as they are entitled), while employed in the conveyance of troops between this country and India. This service commenced its operations in September 1867, and has worked very satisfactorily.

A new cantonment has been sanctioned at Colaba for the whole of the garrison of Bombay, including the Native Regiments. The Sanitary Commissioners have reported favourably of the proposed scheme, and the construction of the necessary barracks will be proceeded with so soon as the plans and estimates have been approved of by the Government of India.

Gas has been introduced into the present barracks at Colaba, but at Poona and Kirkee it was not found to be so feasible, owing to the temporary nature of the accommodation and scattered distribution of the barracks.

Employment has been found for the wives of soldiers in making up clothing, whereby they are enabled to earn from 9*d.* to 1*s.* a day. An English school has also been established in each Native Regiment, for the instruction of the children of Sepoys.

Military Funds.

The following decisions affecting the interests of subscribers to the several Indian Military Funds, which were transferred to the Government in September 1866, have been passed during the past year.

On the absorption of the estimated surplus balance of the Madras Military Fund, the subjoined concessions were granted to subscribers and annuitants, viz.:—

The reduction of the extra donation for daughters, from Rupees 282 to Rupees 200.

The reduction to bachelor's rates of the donations of widowers with offspring.

The abolition of all demands on account of minimum.

The reversion of daughters, born subsequently to 7th June 1867, to their pensions, on becoming widows.

And the addition of 8 per cent. to the pensions of widows.

The

The benefit conceded to officers transferred from the Indian to the British Military Forces, of continuing to subscribe at English or Indian rates, according to receipt of pay, has been extended to officers resigning the Indian Service in order to take up paymasterships in the British Army.

It has been ruled by the Secretary of State, that the donation in the rank of colonel was not to be demanded from officers of the Staff Corps, in which substantive rank of colonel does not exist, until they are in receipt of colonels allowances. Colonels of artillery and engineers holding the substantive rank aforesaid are not to be affected by this decision.

The transfer of the Bengal Medical Retiring Fund, under Act 29 Vict. c. 18., was effected in India and in England on the 1st March 1868; and arrangements have been made for the transfer of the Bombay Medical Retiring Fund on the 1st May 1868.

Political.

Nuzzerana. The levy of Nuzzerana (or fees on succession) is a subject which has engaged the attention of the Government for a number of years past. Hitherto no definite system existed, nor had any general rules or regulations been framed by the Government of India for the guidance of their officers. With a view, however, to ensure uniformity of practice for the future, a code of rules has been framed applicable to all conditions of succession, without introducing any fresh stipulations likely to interfere with existing engagements.

Mysore. Official intelligence has reached this country announcing the death, on the 27th March last, of his Highness Krishna Raj Wodiar Bahadoor, Maharajah of Mysore, and Knight Grand Commander of the most Exalted Order of the Star of India. By this event the British Government loses an ally whose friendship has lasted for more than half a century. The Government of India lost no time in issuing a proclamation acknowledging his Highness Chamrajend Wodiar Bahadoor, the adopted son of the late Maharajah, as his successor, and as ruler of the Mysore territories. During his minority this Province will be administered, in the name of the Prince, by the British Government, on the same principles and under the same regulations as heretofore, until his Highness shall have attained his majority, when, if he be found qualified for the discharge of the duties of his exalted position, the government of these territories will be entrusted to him, subject to such conditions as may be determined at that time. All persons who were dependent on the late Maharajah will receive full consideration according to their several positions, and were assured of the protection of the Mysore Government.

In token of respect for the memory of the late Prince, all public offices throughout the Province were ordered by the Commissioner to be closed, except for urgent business, for the space of three days.

N. E. Frontier. In October 1866 a party of Munipories, under Gokul Sing, a son of the Ex-Rajah of Munipore, made a raid into that country from Cachar, but they were pursued and dispersed by a police force. To prevent such outrages, the Munipories who had been implicated in this and similar attacks were forbidden to remain in Cachar or the vicinity of Munipore; the out-posts at Jirighat and Godown Ghat on the Munipore frontier were permanently occupied by the British police; and a proposal was made to the Rajah of Munipore that a strong police guard, to be paid by him, should be posted on the Kalla Naga Hill, which commands the easiest access from Cachar into Munipore. Measures have also been taken for strictly enforcing the provisions of the Arms Act in the neighbourhood, by prohibiting the manufacture or sale of arms and ammunition by persons who have not received a license to transport them, and exercising great caution in the grant of such licenses.

The illness of the officer entrusted with the conduct of the arrangements for suppressing the raids of the Nagas, as described in last year's report (page 38), has hitherto prevented the carrying out of the new line of policy. Another inroad was committed in June 1866, in which 26 people were killed; and, owing to timely notice not having been given to the police, the marauders made their escape. The Deputy Commissioner has been empowered to proceed summarily against any village proved to have been concerned in a gross outrage, on the understanding that this power is to be exercised only in cases where it would defeat the object of remedial action to refer it for the prior sanction of higher

authority. Orders have also been given for opening out the roads urgently required for facilitating communication between Samoogooting, Dhemapore, and the sub-divisional station of Golahghat.

In furtherance of the scheme described in the preceding report (page 38) of placing a special officer in charge of the Garrow Hills, they have been separated from the district of Gowalparah, and formed into a distinct jurisdiction under a first-class Assistant Commissioner; and some administrative changes have been sanctioned, by which the police and revenue responsibility in each village or tract may be made to rest with one headman. Measures were also taken to open out communications.

At the annual meeting with the Abor chiefs, an agreement was made with the 14 clans of the Bor Abor tribes, who had hitherto kept apart from all intercourse with our officers. The only tribe which still maintains an unfriendly attitude is the Pashre Meyong Abors, and it is hoped that they will not long hold aloof.

In order to gain an accurate knowledge of the different tribes inhabiting the confines of Akyab and Chittagong, and to increase the means of protecting our villages from future attacks, an officer has been appointed Superintendent of the Arracan Hill tracts. The result has been so far satisfactory that there has been no fresh Shindoo raid during the year.

A series of inroads was, however, committed in these tracts by the Looshai Kookies of the Howlong tribe, which had hitherto made no incursions in this direction. It was at first intended to send a force to punish them; but as no expedition would be likely to prove effectual against this tribe (which numbers 16,000 men), unless conducted by a regularly equipped military force, the only measure sanctioned for the present was to raise the police to its full strength, and it was directed that all attempts at dacoity should be repelled, the marauders being followed only where it could be done with safety.

Endeavours were, in the meantime, being made to discover why the measures for the pacification of the frontier have hitherto proved unsuccessful; and also to induce the Looshai and Syloo chiefs to enter into engagements similar to those which have been made with other tribes.

For the administration of the Dooars ceded by Bootan, a new division has been formed, under the title of the Cooch Behar division, which, besides that territory, comprises the subdivision of Titalyah, the districts of Darjeeling, Gowalparah, and the Garrow Hills, and the Native State of Cooch Behar, so long as it may remain under British management.

Central Provinces. During the year 1866 the Rajah of Makrai, a feudatory chief of the Nerbudda country, died; he has been succeeded by his adopted heir, a youth aged 16, and well disposed.

Jug Shahai, Rajah of Phuljhur, also died during the same period; but his successor had not been decided upon. This chieftain was one of the most important non-feudatory chiefs of the Mahanuddy Valley.

Tonk. Rajpootana has been during the year the scene of bloodshed of a very serious character, which has led to the deposition of the Nawab of Tonk, under the following circumstances. The Thakoor of Lawa was invited by the Nawab to his capital, and was there placed in confinement, and his uncle and minister, Rewut Sing, together with 15 other persons, were all foully murdered in the house of the confidential minister of the Nawab of Tonk. Doubts were entertained at first as to the extent of complicity on the part of the Nawab; but from subsequent inquiries it was made clear that he had been a party to the assassination. As a mark of displeasure, the Government of India deposed the Nawab, assigning him an allowance, with a place of residence, and nominating his youthful son in his place, during whose minority the administration of affairs is to be conducted by a Council of Regency, under the superintendence of a British officer. Sarwar Shah, the minister at whose house the murder took place, was to be confined for life as a political prisoner. The Thakoor of Lawa will no longer be subject to the Tonk state, but will be placed under the control of the political agency of Jeypore. Pensions payable out of the revenues of Tonk will be granted to the heirs of the murdered people; and the salute hitherto rendered to the ruler of this State will be reduced from 17 to 11 guns.

Indoor. An important question has been raised in connexion with the construction of railways passing through Native States, in consequence of the Maharajah Holkar having levied excessive duties on the transit through his territories of merchandise intended for transport by railway. It has been suggested that if

if concessions for railway undertakings, injurious to the finances of any Native State, are required, some corresponding advantage should be granted to reconcile the chief to any loss he has sustained.

Bhawulpore. The administration of affairs in Bhawulpore (see last year's report at page 40) made most satisfactory progress. Civil and criminal courts have been established; a police force has been organized; and the diminution in crime, both in this State and the adjacent districts, has been very marked in consequence. Considerable reductions have taken place in the transit and import duties, which were very oppressive; the wasteful expenditure of the Commissariat Department has been also checked; and the accounts of Revenue and Expenditure brought into something like order; attention has been likewise paid to irrigation with more effect, and a system of forest conservancy has been organized; a school has been opened, and measures taken for establishing dispensaries in the larger towns. As might be expected, some few of the old officials, who find themselves debarred from the illicit gains enjoyed under the lax rule of the Nawab, cavil at the existing state of things; but all the respectable portion of the nobility and upper classes, and the mass of the people, fully appreciate the comforts conferred by the changes in administration, and as the best practical test of the feelings of the people, it may be mentioned, that old proprietors were rapidly returning to lands which they had abandoned, and applications for new grants were made in such large numbers that in one sub-division alone, 100,000 acres of land had been leased out to new cultivators during 1866–67.

Punjab. Reliable intelligence has been received of the death from fever of Feroze Shah, (the rebel son of the ex-King of Delhi), at Bokhara, where he is said to have received a compassionate allowance from the Ameer.

Cashmere. In 1864 the Maharajah of Cashmere considerably reduced the rates of duty leviable on merchandise entering his territory; a measure which resulted in a large increase in the trade between that country and the adjacent districts of British territory. Recently, however, complaints were received by the Punjab Government that at Ladakh, a noted emporium for the trade between British territory and Eastern Turkistan, the revised rates of tariff were not duly observed, and that exactions detrimental to trade were still practised by the officials of the Maharajah. His Highness was accordingly addressed upon the subject; but the result not being satisfactory, the Punjab Government recommended, and the Government of India sanctioned, as an experimental measure, the deputation of an English officer to Ladakh, for the purpose of seeing that the tariff of 1864 is fully adhered to, and of collecting information regarding the progress of events in Eastern Turkistan, and the prospects of developing commercial relations with those countries. The presence of this officer has already led to a further reduction of duties, and has increased in a marked degree the confidence of British traders. Her Majesty's Government have now decided that the deputation of a British officer to Ladakh shall be made every season, with the full understanding that he is to abstain from any course of action calculated to give offence to the rulers of Cashmere and other foreign territories adjoining. The Maharajah has since evinced his good feeling towards the British Government, by placing at the disposal of the Lieutenant Governor of the Punjab a sum equivalent to between 6,000*l.* and 7,000*l.*, for the promotion of literature and science in that Province. In imitation of this good example, the Rajah of Khupoortullah has contributed 1,000*l.* for the same purpose.

Burmah. During the past year a survey was commenced, with the view of ascertaining the best practicable route for the construction of a railway from Rangoon to Western China, the operations for which were confined to an examination of the country lying between that town and the north-east portion of British Burmah. No serious obstacles by this route appear to have been met with within British territory. The question of extending the survey beyond the frontier having been referred to the authorities at home, it has been decided by the Government of India to suspend all further operations for the present, as the prosecution of such an enterprise, in the existing state of affairs, might probably lead to political embarrassment, and create complications with Burmah.

With a view to regulate commercial relations with the Burmese State, Colonel Fytche was appointed on a mission to Mandalay; which resulted in a revised treaty being satisfactorily concluded on the 25th October 1867, between

the British Government and the Government of Burmah. The provisions of the treaty appear to be such as to conduce materially to the interests of the two countries.

Travancore. Steady progress has been made in the administration of both civil and criminal justice in Travancore, and continued improvement appears in the efficiency of police operations; the great increase which would have been entailed by the raising of their salaries has prevented the adoption of a measure, the importance of which, with a view to their better organization, has been fully recognised.

The enfranchisement of the Crown lands of the State, to which allusion was made in last year's report (page 42), has produced most beneficial results, and extensive sales have consequently taken place. All compulsory labour in the working of forests has been done away with. An experiment is being made of planting chinchona trees in different parts of the forests.

Satisfactory progress still continues to be made in education. A higher or collegiate branch of the high school had been established under a gentleman from the Edinburgh University; a preparatory branch attached to the high school has been proposed to meet the continued demand for education; besides arrangements for the instruction of females of the higher classes, a general school is about to be formed, under the superintendence of a lady from England, whose services have already been engaged for this purpose.

The vigorous prosecution of public works in different parts of this territory greatly mitigated the distress experienced in the past season of scarcity.

His Highness the Maharajah was, in February 1867, invested as a Knight Grand Commander of the Order of the Star of India, and his Highness's Dewan, Madava Rao, was at the same time made a Knight Commander of the same order, for his valuable administration of the affairs of this State.

Cochin. Improvement has been made in the High Court of Appeal by the appointment of a qualified First Judge. Additional steps have been taken for the improvement of the other Courts. The scale of punishments laid down for offences under the Penal Code has been adopted in Criminal Courts, and the jurisdiction of the Moonsiffs has been extended as in Travancore. It is in contemplation to enlarge and improve the jail accommodation. Education continues to make satisfactory progress.

Carnatic. The long pending question as to the claim of Mahomed Ali Khan, better known as Azeem Jah, to the throne of the Carnatic, by right of inheritance, may be now considered settled; Azeem Jah having consented to renounce all pretensions to the Musnud of the Carnatic. A settlement of the case has been undertaken by Her Majesty's Government, the principal terms of which, as accepted by him, are as follows:—

That the title of Prince of Arcot be conferred upon His Highness Azeem Jah, and on successive representatives of the head of the Arcot family;

That he be allowed a salute of 15 guns, to cease at his death;

That his allowance be increased from 15,000*l.* to 30,000*l.* a year, of which one half be continued to his successors in perpetuity;

And with the view of enabling him to maintain his position, a commission be appointed to inquire into the liabilities incurred by his Highness while he acted as Regent during the minority of the late Nawab Mahomed Ghous, for the settlement of which a sum not exceeding 150,000*l.* be set apart.

The proceedings of this Commission are not yet concluded.

Kolapoor. By the untimely decease during the past year of the Rajah of Kolapoor, this Native State loses an enlightened ruler and the British Government a firm friend.

In consequence of the youth of his successor by adoption, this State has been placed under British superintendence, and measures have been taken for the suitable education of His Highness, who is reported to be a young man of considerable promise. The satisfactory condition of the finances will admit of many works of improvement being carried out during the minority of the present Rajah, and the revenue survey will be completed.

Inchulkurrunjee and five other estates, in consequence of the youth of the Chiefs, are also under British management. The affairs of two principal States in Kolapoor (Vishalghur and Bowra) have been satisfactorily conducted by their respective Chiefs during the past year.

Kattywar. In Kattywar, bodies of outlaws, under Wagheer leaders, continued their depredations, but in greatly diminished numbers. The Thakoor of Veerpore entertained some of these bands, and, the offence having been brought home to him, his estate has been placed under attachment.

Other Chiefs, however, have shown creditable endeavours to persevere in a course of progress. The Nawab of Joonaghur, the Jam of Nowanuggur, and several other minor Chiefs, have been occupied during 1866 with works of improvement in their respective jurisdictions. Postal communication has received attention, and receipts from this source have largely increased; 34 new schools have been established, with 2,275 pupils in excess of 1865.

An engagement took place in December 1867 between one of these Wagheer bands, consisting of 26 men, under their noted leader Dewa Manek, and a Native force commanded by European officers, with a portion of the Nowanuggur Police, which resulted in the death of the Wagheer leader and 16 of his followers; only 7 of the whole escaped. But it is much regretted that this success should have been gained at the cost of the lives of two most able and zealous officers (Captains Hibbert and Latouche), through the cowardice displayed by the Native Police, whose conduct has been brought to the notice of the Jam of Nowanuggur.

Kutch. In Kutch the leading event of the year was the birth of an heir to his Highness the Rao, which, according to practice, was the occasion of a general amnesty among prisoners in jails, though protested against by the Political Agent. The revenue administration of the province has been successful, and further progress has been made in education by the opening of an additional school for girls. Important judicial reforms have been promised by the Rao, and for the attainment of this object his Highness has secured the services of a trained Native judicial officer, who will also be his minister. Cholera made its appearance during the year, but, owing to the measures adopted by the Durbar, it was confined to a small compass, and the deaths were comparatively few. The prices of grain and other necessaries continued high.

Khandeish. Bheema Naik, who had for a long time disturbed the peace of the Sautpoora Hills, and had successfully evaded arrest, was apprehended in the Burwanee State during the past year.

Scinde. The question relating to the provision of the ex-Ameers of Scinde and their families has at length been finally settled. Allowances have been granted to the various persons entitled to consideration; but no grants of land were to be made under any circumstances; and, on the death of any such pensioner, the continuance or otherwise of the allowances thus lapsing to Government will be considered on the merits of each individual case.

Revenue.

Land Revenue.	1865–66.	Eleven twelfths of 1865–66.	1866–67.
Number of Estates - -	225,145	206,383	225,747
	£	£	£
Total Demand - -	4,137,188	3,792,422	3,646,638
Collections - - -	3,755,451	3,442,497	3,341,987
Remissions - -	31,520	23,893	11,672
Balances - - -	350,217	346,032	292,979
Advance Payments -	20,443	18,740	44,287

Customs.	1865–66.	Eleven twelfths of 1865–66.	1866–67.
	£	£	£
Gross Collections from Merchandise - -	937,928	859,767	858,165
Receipts on Salt - -	1,956,559	1,802,679	1,771,854
Total Receipts, including Wharf-rent, &c. -	2,922,613	2,679,061	2,643,897
Deduct Refund Drawbacks and Charges - -	156,286	143,262	97,899
Net Revenue - -	2,766,327	2,535,799	2,545,998

Bengal. The annexed statement shows the Demands, Collections, Remissions, Balances, and Advance Payments on account of Land Revenue for the official year 1866–67 as compared with 1865–66. The falling off in the Collections was principally in the Cuttack Division, and attributable to special causes. The Remissions and Balances were less than in the preceding year, while on the other hand the Advance payments were greater.

The entire revenue from Customs is shown in the margin for the same period. The net revenue showing an increase of 10,199*l.*, over eleven twelfths of the previous year. The gross Collection in Calcutta amounted to 2,575,931*l.*, as compared with 2,645,842*l.* in 1865–66, showing a decrease amounting to 69,911*l.*

The Government of India ordered a thorough revision of the Tariffs of Valuation throughout the whole of India; a Committee was appointed, and on receipt of their report Act XVII. of 1867 was

was passed, by which the export duty on Grain of all kinds has been raised from two to three annas per maund, or 3*d.* to 4½*d.* for every 82 lbs. The export duty on Saltpetre, and the import duty on all Machinery, have been removed, while the import duty on Sparkling Wines and Liqueurs has been raised to 3*s.* per Imperial gallon.

Salt.	Eleven twelfths of 1865–66.	1866–67.
	Lbs.	Lbs.
Government Salt - -	27,130,148	147,658,384
Excise Salt - -	581,184	145,304
Imported Salt - -	452,520,956	452,943,482
Total - -	480,232,238	600,747,170

The total quantity of Salt cleared amounted to 600,747,170 lbs., exceeding by 120,514,932 lbs. the quantity cleared in the previous year. The net revenue amounted in the past year to 2,518,577*l.*, while in 1865–66 it was 2,198,449*l.*, showing an increase of 320,128*l.*, mainly attributable to the increased sales effected of Government Salt, and to a slight increase in the duty realised from imported Salt, while the charges debitable to the latter had decreased by about 8 per cent. An Amendment of the Salt Law was under consideration of the Legislative Council at the close of the year under review, with the object of enabling all classes of Magistrates to try Salt cases.

Opium.	1865–66 (Eleven Months).	1866–67 (Eleven Months).
	£	£
Gross Receipts - -	5,857,718	4,944,014
Gross Charges - -	1,733,427	1,269,660
Net Revenue - -	4,124,291	3,674,354

The net revenue derived from Opium was 3,674,354*l.*, which, when compared with eleven twelfths of the previous year, showed a decrease of 449,937*l.* The aggregate decrease of revenue, including the reduction under the head of Abkarree, amounted to 454,657*l.*

Opium.	1865–66 (Eleven Months).	1866–67 (Eleven Months).
Chests sold - - -	51,343	38,680
	£	£
Amount realized - -	5,461,124	4,823,313

A similar comparison of the number and value of chests sold showed a decrease of 12,663 chests, with a value of 637,811*l.* In order to meet the requirements of revenue from this source, the Opium Agents at Behar and Benares have been authorized to extend the cultivation of Opium from 700,000 to 750,000 acres.

The main cause of the decrease of net revenue for the year in question is assignable to the same reason given in last year's report; namely, the reduced condition of the people, arising from the scarcity of food felt in so many districts.

The increase in the charges of Collection which was noticed in the Report of last year is assignable to similar causes, it having been found impossible to reduce the expenditure incurred in the collection of Excise and Income Tax together, in proportion to the revenue lost by the abandonment of the latter impost. The per-centage under this head had risen during the year under review from 6·5 to 7·8.

The revenue derived from sale of Stamps showed an increase over eleven twelfths of 1865–66 of 3,630*l.*; and of 355,623*l.* as compared with 1851–52, while the comparison with 1861–62 showed a decrease of 42,004*l.*

The expediency of revising the Stamp fees in judicial proceedings having been brought to the consideration of the Government of India, Act XXVI of 1867, was accordingly passed with this object.

North-west Provinces.

The average amount of rain-fall was nearly four inches more than in the year preceding. The harvests on the whole were fair, though in certain districts not quite up to the average, and in one part a partial failure of the crops occurred from the want of early rain.

Land Revenue.	1865–66.	1866–67.
	£	£
Demand - - -	3,904,875	3,907,448
Collections - -	3,836,393	3,849,812
Balance - - -	68,482	57,636

The Demand and Collection of Land Revenue both showed an increase, while the balance exhibited a decrease as compared with the previous year.

The outstanding Balances, which amounted to 546,679*l.* in 1863–64, have been reduced to 125,070*l.* in 1866–67; thus showing a gradual decrease during the last three years.

The

The number of Suits under the Rent Laws has again increased, there having been 64,935 suits against 60,813 in 1865–66.

The principles on which the permanent settlement of the Land Revenue of Estates effected by Canal irrigation is to be carried out have been under the consideration of the Government during the past year, and it has been finally ordered, "that no estate shall be permanently settled in which the actual culti- "vation amounts to less than 80 per cent. of the culturable area; and that no "permanent settlement shall be concluded for any estate to which Canal irrigation "is likely to be extended within the next 20 years, and the existing assets of "which should thereby be increased in the proportion of 20 per cent." Instructions have accordingly been issued by the Board of Revenue and in the Irrigation Department.

The gross collections in Customs amounted to 1,123,670*l.*, as compared with 1,045,950*l.*, or eleven twelfths of 1865–66, showing an increase of 77,720*l.*

There have been none of the rapid fluctuations of trade observable in former years, consequently a steady increase appeared to have occurred in the receipts during each month of the year.

A satisfactory increase has to be noted also in the gross receipts realisable from Stamps, mainly under the head of Judicial Stamps.

Since the organization of the Central Provinces, the public Revenue has received full attention. There is now a Forest department, yielding a revenue of 40,000*l.* a year. The Salt Tax, which in 1861 afforded an income of 90,000*l.* annually, now realizes 180,000*l.* This increase has been gained without raising the duty or burdening the poor; indeed at the present time the retail price of salt at Nagpore is cheaper than it has been for the last seven years. The Liquor Excise Revenue has been placed on a sound footing, and every attempt to encourage intemperance has been done away with. The Stamp Revenue has been more than doubled during the last five years; and the burden of certain local assessed taxes, which used to press upon the poorer classes, has been transferred to the richer, with benefit to the people and the public treasury. Central Provinces.

The public Revenue has been punctually realized during the past year. The total receipts were about 6 per cent. in excess of the income of the preceding year.

The total demand for Land Tax amounted to 646,170*l.*, being 89,589*l.* over the demand of the foregoing year. Out of this, 641,125*l.* were collected, leaving a balance uncollected of 5,045*l.*; but of this, 2,449*l.* only were realizable. The net balance, therefore, amounted to one third per cent., on the total demand, as compared with one half at the end of 1865–66.

The regular settlement in these Provinces progresses satisfactorily. Five additional districts have been completed, and two more (Chindwara and Upper Godavery) are very near to completion. There remain only Chutteesgurh, Chanda, Nimar, and Mundla in which operations have to be forwarded. In districts where settlements have been completed, a copy of the record of rights, and of the field survey of his estate, is placed in the hands of every landholder The people now fully understand their rights, and appreciate the value of the record thus made over to them.

The total yield of the Salt and Sugar taxes may be compared thus: in 1865–66, 183,330*l.*; and in 1866–67, 160,653*l.* The decrease was owing to the temporary stoppage of imports during two months at the close of the year, which materially affected the receipts for the whole year. This is explained by the fact that the new arrangement for collecting the duty at the railway stations had not been matured. The completion of the railway to Nagpore is expected to give a large impetus to the trade in Bombay salt, and enable it to compete with the Madras salt, which comes in through another part of the country. Prompt measures have been taken to repress the system of smuggling, of which there was every appearance in the year 1865–66.

The total Excise Revenue was 97,554*l.*, as compared with 92,799*l.* in 1865–66. The increase was thus five per cent. in excess of the receipts of the foregoing year.

The improvement of the Excise Revenue by the adaptation of the central distillery system, especially in the Nerbudda Division, contrasts most favourably with the monopoly farm system in other districts. It has been ascertained that the liquor consumers of the open country can afford to pay higher rates, and accordingly the rates of still-head duty have been raised in such parts, while

the licenses for retail sale in towns and populous tracts have been put up to auction, and fetched high prices. Thus the revenue has increased without any corresponding increase of drinking, the moral and material benefits of which have been noticed by both European officers and impartial Natives, and are becoming more and more apparent among the hill tribes.

The gross receipts from stamps realized 57,343*l.*, against 57,384*l.* in the foregoing year. The provisions of the Stamp law are being more generally understood, and offenders were systematically punished. Prosecutions for such offences against the revenue rose from 985 in 1865–66 to 1,199 in 1866–67.

The Pandhari tax, which is an ancient impost, has now been placed upon a firm legal basis; a corresponding increase took place in this source of revenue from 22,612*l.* to 33,297*l.* in 1866–67.

Punjab.

The season of 1866–67 was drier in the Punjab than its predecessor; the average rainfall for the whole province having been 22·9 inches against 26·5 inches in 1865-66. The deficiency was confined to the latter half of the year. The want of rain during the winter was very general, causing distress in some parts of the country.

	1865–66.	1866–67.
	£	£
Demand - - -	1,996,825	1,960,723
Collections - -	1,941,975	1,944,575
Balances - -	24,850	16,147

The demand and collections of revenue for the past two years are shown in the accompanying table. The balances outstanding were less than in the previous year, of which 1,184*l.* only was recoverable. The land revenue of the province generally, save in one or two instances, has been realized with facility, and with less arrears than in 1865-66. There has been a reduction of over 5,000*l.* in the regular revenue; in addition to which there was a further reduction of 15,000*l.* from the revised settlements in the Amritsur division, owing mainly to the system adopted of assessing canal villages at unirrigated rates, allowing the canal department to reap the whole benefit of the share due to the Government from increased assets resulting from such irrigation; a measure which has not met with the approval of the Government of India. A considerable addition, however, to the revenue was expected during the current year, on re-assessment of these estates.

A great accession to revenue took place from sale of wood for railway and other public purposes.

The districts of Mooltan and Dera Ismail Khan suffered from drought during the past year, which necessitated a certain amount of relief; and it was expected that the balances of revenue in Peshawur would have to be remitted in consequence of the inundations which occurred in that district.

Of the financial results of the new settlement operations that have been carried on of late years in the Punjab, it appears that the immediate result for the districts of Goordaspore, Amritsur, and Sealkote in the Amritsur division would be a net decrease of revenue to the extent of 4,540*l.*, but which decrease would disappear within 15 years, and be converted into an increase of 4,041*l.*, and after 15 years to an increase of 5,257*l.* over the amount of last settlement. In the districts of Lahore, Goojerat, and Goojeranwala, which were in course of settlement, there will be an immediate increase of revenue of 16,500*l.* on a present assessment of 16,200*l.*, which increase will be enhanced by 8,000*l.* within 15 years, and by 4,500*l.* more after 15 years. The net result of the assessment of the six districts assessed up to date will be, in round numbers, an immediate increase of revenue of 16,400*l.*, with an ultimate increase after 15 years of 35,000*l.*, upon an aggregate revenue of 497,300*l.* The net cost of these settlement operations was estimated at 55,000*l.*, so that the entire cost to Government was expected to be recovered in three years from the enhanced revenue obtained.

Of the other branches of revenue of this province there has been a corresponding increase under each item, the aggregate collection of which amounted to 1,085,185*l.* in 1865–66, and 1,144,173*l.* in 1866–67, thus showing an increase of 58,988*l.*

Hyderabad assigned districts.

The area of cultivated land in the assigned districts of Hyderabad was 4,592,228 acres, being 374,859 in excess of the quantity in the previous year, or equal to nine per cent. The land revenue demand rose from 397,144*l.* to 425,431*l.*, thus exhibiting an increase of 28,287*l.*, which had been collected without the slightest difficulty. The arrears only amounted to 1,188*l.*, of which about 156*l.* were said to be irrecoverable. Advances and remissions on account of revenue are unheard of

of in these parts, and land is eagerly sought for. In 1866 the average prices of grain reached their highest points, and a sensible reduction was felt in the year following.

The revenue from excise duties amounted to 107,137*l.*, being 27,563*l.* in excess of the previous year; the outstanding balances at the close of the year amounted only to 540*l.* During the year the excise regulations were thoroughly revised, and the cultivation of opium was likewise regulated for the first time by a system of license. The total area under poppy cultivation was 3,902 acres, with a tendency to increase; the quality was pronounced to be excellent, and it commanded a high price in the market.

These districts will in future be included in the great salt cordon which stretches from the North of India to the Godavery, known as the Imperial Customs line. Heretofore this line was drawn at the banks of the Wurdah river. The revenue from the sales of manufactured salt showed a decrease of 2,497*l.*

The income derived from stamps was 26,187*l.*, against 23,767*l.* in the previous year, being an increase of 2,420*l.*

The gross revenues of this province rose from 509,019*l.* to 577,417*l.* in 1866-67, an increase equal to 13 per cent. The increase in revenue during the last six years was estimated at 80 per cent.

1865–66, Twelve Months.	1866–67, Eleven Months.
£ 1,001,453	£ 920,825

British Burmah.

The total revenue for the Province of British Burmah would appear to have fallen greatly in the official year ended 31st March 1867, but when compared with eleven twelfths of the previous year there will be a small increase of 2,826*l.* This comparatively small increase was attributed to a reduction in the revenue from forests, amounting to 35,127*l.*, arising from the disturbances in Upper Burmah and the depressed state of the timber trade. In all other items of revenue there seems to have been an increase, particularly in Excise, Stamps, and Land.

Madras.

	1865–66.	1866–67.
	£	£
Revenue - -	6,331,713	5,621,374
Charges - - -	666,856	620,353

The revenue in Madras amounted to 5,621,374*l.*, being 182,696*l.* less than eleven twelfths of the revenue of the preceding year. This decrease was due to the effect of a disastrous season, and to the almost complete cessation of collections on account of arrears of Income tax. The charges for collection during the same period were 11 per cent. on the revenue, and exceeded those for the preceding year by 9,068*l.* This excess is accounted for by an increase to the service generally, principally in the Forest and Land Revenue establishments.

The drought which prevailed during the first half of the year 1866–67 created such a distress and suffering as had not been experienced since 1832, and, combined with the two preceding years having been unfavourable for agriculture, led to a famine in the Ganjam and Bellary districts, and happily the north-west monsoon, which commences in October, having brought a plentiful supply of rain, the prospects of the districts changed for the better. In the latter of the districts, a fifth of the number of cattle perished from want of water and pasture, and prices of grain rose correspondingly high; but in spite of these disadvantages the area under cultivation increased by 70,998 acres, though the assessment decreased by 8,472*l.*

There was a slight diminution in the receipts from the Timber customs, arising from the depressed state of the trade in the French territories. The revision of the Revenue establishments, which was concluded during the year under review, led to a net saving of 78,544*l.* per annum.

Bombay.

	1865–66.	1866–67.
	£	£
Town and Island of Bombay	7,724	7,702
Southern Division - -	1,184,503	1,132,881
Northern Division - -	1,318,182	1,429,123
Sind - - -	356,853	292,135
Total - -	2,867,262	2,861,841

The Land Revenue for the whole of the Bombay Presidency showed a decrease amounting to 5,421*l.*, which was slight, considering the period under review. The decrease in the Southern Division was assigned partly to a change in the dates fixed for the collection of the revenue instalments *in part.* In one district the decrease was occasioned by the commutation rates fixed for the Government Grain revenue having been lower than in the preceding year.

The whole of the increase in the Northern Division is due to extended cultivation and enhancement of assessment leviable in those Talookas which have been brought under the Revenue Survey Settlement.

1865–66.	1866–67.
£ 592,014	£ 544,362

Of the other branches of revenue there has been a decrease under the head of Sayer Revenue, realizable for the whole Presidency, including Sind, amounting to 47,652*l.* This decrease was general throughout, and was partly due to the change of the official year and partly to to the abolition of the Income tax, with the exception of one district in the Southern Division, where the increase was due to a large revenue having been derived from forests and other miscellaneous items. Throughout the Northern Division there was an increase under this head, amounting to 6,942*l.*

	1865–66.	1866–67.
	£	£
Customs	774,633	707,722
Salt	535,331	373,372
Opium	2,127,360	1,852,140
Miscellaneous	74,975	65,748
Total	3,512,299	2,998,982

The decrease in Customs duty amounted to 66,909*l.*, of which 46,894*l.* was on Imports, and 20,015*l.* on Exports. The falling off in the latter is attributable to the general depression of trade. The decrease in Salt revenue was owing to fewer removals of salt, in consequence of a very large quantity having been taken away in the previous year, in anticipation of the increase in the rate of duty, which came into force at the early part of 1865. The number of chests on which fees were levied were 30,869, against 36,200 in 1865–66, being less by 5,331. The revenue derived therefrom was proportionally less by 275,220*l.*

Forests.

Bengal. The attention of the Forest Department in Bengal has been almost entirely confined to the forests of Sikhim during the past year. The difficulty in procuring labour has been overcome, and the wages of coolies have been less than in the previous year. A License system has been introduced to prevent the needless waste in the cutting of canes, which grow at an elevation of about 5,000 feet above the level of the sea. Licenses have also been granted for the collection of wax and lac.

During the months of March and April numerous fires annually occur in these forests, but by cutting away narrow strips of jungle along the sides of roads, the progress of this destructive element has been effectually checked. Boundary pillars have been erected in those districts where no natural limits for the reserved forests exist in the Terai.

The damage sustained by the forests in the Bhootan Division has been very great from the fact of the Bhootan Government leasing large tracts to zemindars, who sublet to timber merchants without any restriction. In order to obviate this evil these forests have been brought under the control of the Government of India.

North-west Provinces. The operations of this Department in the North-west Provinces have consisted principally in carrying out a new system of conservancy, as mentioned in last year's report (page 8). The actual Revenue for 1866–67 was 56,777*l.*, and the Expenditure 31,475*l.*, which, after deducting a deficit of 2,993*l.* for the Meerut and Gurwhal Districts, leaves a net Revenue of 25,302*l.*

In the Meerut Division it has been found necessary to extend the width of the boundary clearings from 10 to 40 feet, in consequence of the branches of trees on each side growing over and the jungle springing up. It is expected that in a very short time the heavy expenditure in this Division for making the necessary roads will cease, and conservancy will then be carried on at a moderate cost.

An Assistant Conservator of Forests has been appointed to the Goruckpore District, in the Benares Division. The value of timber obtained by thinning and clearing the forests of dead trees will more than cover the expenditure of the operations undertaken. These forests are expected to supply hereafter a large quantity of valuable timber for building purposes.

Central Provinces. The forests of the Central Provinces extend over an area of about 23,000 square miles, and are classed as reserved and unreserved forests. The demarcation of the former has now been brought almost to a conclusion. In the more important tracts these reserves are in full working order, and the people of the country thoroughly understand the rules for conservancy, making no attempt to

trespass

trespass nor to injure the trees. Growing trees have been spared so as to keep in view the requirements of future years.

The most noteworthy explorations of the past year were made in the Chanda District; arrangements are being made to work these forests under special agreement, which will give to the proprietors a considerable revenue, and secure at the same time a regular supply of first-rate timber for the Nagpore and Godavery Valley markets.

The system of working the unreserved forests has now become consolidated, except in the Chutteesgurh Division, where the demarcation of the boundaries between Government wastes and private estates has not yet been completed. The right of collecting forest produce is let out annually, the leases being taken up by the leading residents of the nearest tracts; thus a revenue to Government has been obtained with the least amount of inconvenience to the people of the country. A remarkable concurrence of testimony exists among all District officials, to the effect that the people have everywhere become accustomed to, and are satisfied with, the Forest Laws. Prosecutions for breach of these rules were exceedingly rare, and complaints of their stringency seldom heard.

	Net Profit.
	£
1864–65 -	10,808
1865–66 -	13,716
1866–67 -	23,985

The financial results of the past year, comprising only eleven months, have proved highly satisfactory as compared with the twelve months of previous years.

British Burmah.

The plan of working the forests of British Burmah by Government contractors and permit-holders was still continued. The quantity of teak timber brought to the seaports from British territory showed a decrease of 14,279 logs when compared with the previous year, which is attributable to the distance the timber has to be dragged to the water, to the increased cost of removal, and to the short supply of water. The foreign timber brought down by the rivers Salween, Irrawaddy, and Sittang shows a proportionately larger decrease, as will be seen in the margin; the causes for which have already been given at page 37.

	Logs.
1865 - -	126,382
1866 - -	69,538

	1866-67.
	£
Receipts - - -	42,649
Disbursements - -	28,513

The financial operations show a satisfactory result, leaving a net revenue of 14,136*l.*, to which should be added sundry receipts appertaining to the year's transaction of 14,156*l.*, making the result for the eleven months ending 31st March 1867 amount to 28,292*l.* as a gross net receipt.

Punjab.

The general condition of the Forest Department in the Punjab, and the attention paid to conservancy, have improved. The timber results for a year, with no good floods, and officially only lasting 11 months, are stated to be satisfactory. As many as 22,600 holes were planted during the past year, towards the artificial reproduction of the deodar. Planting for fuel in the plains has been extended, and about 3,000 acres have now been operated upon, under the orders of the Conservator of Forests, with a fair measure of success. It is expected that by 1875 a sufficient area will so have been planted, as to ensure against a dearth of wood fuel, along the whole line of railway from Mooltan to the Jumna.

Hyderabad assigned districts.

The system of Forest Conservancy in the Hyderabad assigned districts is similar to that in practice in the Central Provinces. The total revenue from this source has risen from 2,130*l.* to 5,172*l.* in 1866-67; and has been mainly obtained from a tax levied on wood brought for sale from unreserved forests, and from grazing leases. This tax, though appearing at first sight somewhat hard, is practically not felt by the inhabitants, who have always been accustomed to some impost on wood brought to market, the right to levy which had been frequently conceded by the Mahomedan Government to the marauding tribes on the hills, as a species of black mail. The amount realised from sale of Government timber was but small.

Her Majesty's Government have acceded to the requisition for a trained forester from Scotland for these forests, on the recommendation of the Government of India, and a competent person has been sent out accordingly.

Madras.

The receipts in the Forest Department for the Madras Presidency were larger than those of the previous year, the net revenue amounting to about 12,200*l.* A large quantity of timber was sold during the year, and the value of the

stock at the depôts was less than at the end of 1865–66 by 1,112*l.* Specimens of the most valuable kind of timber were supplied to the Paris Exhibition.

The total net surplus of actual receipts over charges since the creation of this Department in 1856–57, including the value of timber in stock on 31st March 1867, shows an ultimate gain to Government, amounting to 185,804*l.*; thus a most valuable public property has been brought under conservancy, the vast timber resources of the country have been carefully developed, and the interests of the State and of the public have been protected from risks which were daily assuming greater magnitude, and which until lately scarcely attracted attention.

Bombay.

	1865–66.	1866–67.
	£	£
Receipts - - -	73,035	56,894
Expenditure - -	63,392	50,070

In the Bombay Presidency the forest receipts fell short of that of the previous year by 16,141*l.*, while there was an improvement in the expenditure, being less by 13,322*l.* The net balance to Government was 6,824*l.* against 9,643*l.* in 1865–66.

The deficiency in the Revenue was assigned to the generally depressed state of trade, which created but a small demand for timber during the year under review.

Waste Lands.

Bengal.

The number of grants for waste lands in the Bengal Presidency, under the old rules, made during the year 1866–7, was 23, with an area of 80,078 acres, the eventual maximum revenue of which will be 2,249*l.*; the total number of these grants up to the end of the year was 549, possessing an area of 1,315,778 acres, the eventual maximum income of which will be 39,051*l.* The present revenue received was 2,902*l.*, realized from 724,743 acres granted in the Soonderbuns. The remaining grants, to make up the total of 1,315,778 acres, were effected in the tea districts of Assam, Cachar, and Sylhet.

The number of grants under the old rules redeemed was 16, with an area of 32,131 acres, for which the price of commutation already paid amounted to 4,098*l.*, leaving a balance due of 4,486*l.* The aggregate number of grants redeemed up to the end of 1866–67 was 95, with an area of 242,676 acres, for which the price of commutation received was 25,482*l.*, while a balance of 33,852*l.* remained to be paid.

Very few sales of waste land were effected, as compared with previous years; the total number of lots sold had been 620, with an area of 641,293 acres, and the price already paid amounted to 66,364*l.*, leaving a balance of 267,104*l.* to be paid.

The cultivation leases taken up under the ordinary settlement rules were 761, up to the end of the year under review, covering an area of 103,370 acres, the present income of which was 7,035*l.*, and the eventual maximum revenue will be 10,196*l.*

As the rates, and in some matters, the particulars of the leases, vary in different districts, the general principles upon which cultivation leases have been granted are as follow:

In Chittagong the rate is one anna or 1½*d.* per acre for the first five years, increasing a like sum for each similar term until the sixth quinquennial period of the whole term of lease of 30 years, when the rate will be 6 annas or ninepence per acre.

In the districts of Cachar and Sylhet the rate is rent free for the first three years; 4½*d.* per acre for the next five years; 9*d.* for the second, and 1*s.* 6*d.* for the third period of five years each; and 3*s.* per acre for the last twelve of the 30 years for which time the leases have been granted.

In Darjeeling the term of lease is for ten years only, of which two are rent free and for the remaining eight years the rate has been fixed at ninepence per acre.

In Assam, where there is a vast extent of waste lands, there are no fixed rates. The practice here is for any one to break up waste land at pleasure, paying only a fixed minimum rent for whatever land is cultivated. If the lands are retained the cultivator obtains at once a transferable title, subject to any tax that the Government may impose; but the lands may be relinquished without any responsibility, at the option of the cultivator.

With a view of affording relief to owners of tea plantations who had been suffering from the depreciation of their property, a somewhat exceptional rule has been laid down, by which the sale of a lot purchased prior to 1st January 1867, which has become liable to be sold for arrears of purchase money and interest, was held to be a sufficient satisfaction of the claims of Government against the defaulting purchaser on account of such lot; and a purchaser of more than one lot was permitted, on application before 1st July 1867, to relinquish any entire lot, and to transfer all sums paid on behalf thereof to the credit of other lots in his occupation, the payments for which had not been then completed.

Central Provinces.

In the Central Provinces the area of Government waste lands extends over 24,000 square miles. During the past year 46,262 acres had been sold in fee simple under the waste lands sale rules; the price realized was 12,889*l.*, or an average of 4*s.* 2*d.* an acre.

British Burmah.

But little waste land appears to have been sold in British Burmah, extending to 4,586 acres in the Tenasserim division only. But grants, under the rules of March 1865, had been made in the Pegu division to the extent of 55,413 acres under certain stipulations, during the past year. Further grants have been suspended until the Government of this province has been able to observe the use made of the privileges allowed under these rules.

Madras.

The sales of waste lands in the Madras Presidency have been also of a limited character, amounting to about 2,274 acres.

Finance.

Receipts and Disbursements.

The income for the 11 months of the official year ended on 31st March 1867 amounted to 42,012,566*l.* against 48,935,220*l.* in 1865–66; and the expenditure was 44,639,924*l.* as compared with 46,169,152*l.* in the previous year. The surplus in 1865–66 of 2,766,068*l.* was therefore followed by a deficit of nearly equal amount in the year under review. Of the total expenditure in 1866–67, the sum disbursed in India was 37,094,406*l.*, and [redacted]4,469*l.* in England, to which must be added 731,049*l.* paid partly in India [redacted]artly in England, on account of guaranteed interest of Railway and ot[redacted]panies, after deducting the net traffic receipts. The expenditure had in[redacted]nder the heads of army, public works, telegraphs, and marine.

Debt.

An increase has been made to the debt of India in this country, amounting to 2,592,600*l.* during the past year. This was effected by an addition to the bond debt of 1,932,700*l.*, a further issue of 130,000*l.* debentures, and an increase of 529,900*l.* to the capital of the five per cent. stock. The four per cent. debenture bonds, which became due during the year, were renewed at five per cent.

The amount of the public debt in India has also increased from 71,437,251*l.* to 72,526,815*l.* at the close of 1866–67; and the amount of cash balances in the treasuries of India was 11,057,054*l.* against 13,771,625*l.* at the close of the previous year.

Paper Currency.

The circulation of Government currency notes throughout India at the commencement of the year was 7,020,254*l.*, and at its close it amounted to 8,090,868*l.*, thus showing an increase in circulation during the year of 1,070,614*l.* The maximum circulation was 10,160,959*l.*, which was covered by 5,762,514*l.* in coin; 755,504*l.* in bullion; and 3,642,941*l.* in Government securities. The minimum circulation was 7,871,897*l.*, and the average was 8,989,317*l.* as compared with an average of 7,784,060*l.* in 1865–66, being an increase of 1,205,257*l.* The extensive use by the public, of notes of the branch circles in India, for the purposes of remittance to the Presidency towns, formed a marked feature in the transactions of the past year. These notes were cashed at the head office, and have been issued to persons requiring them in any amounts desired. Orders were issued by Government to facilitate the conversion of currency notes at Government treasuries. In the Bombay circle the amount of notes in circulation during the past year was liable to violent fluctuations, arising from the unsettled state of monetary affairs, and from the depression of trade generally.

The business of exchanging notes was transferred from the Presidency banks to the Government on the 1st March 1867. The saving to the State by this change was expected to be considerable.

Mint.

No returns of the operations of the Calcutta Mint for 1866–67 have as yet been received.

	1865–66.	1866–67.
	£	£
Value of—		
Silver coined	544,994	148,079
Copper coined	95,644	19,500
Total -	640,638	167,579

In regard to the Coinage the past year appears to have been an exceptional one in Madras. The receipt of bullion fell much below the average of many years, in consequence of the great decrease in the export of cotton, and the unfavourable rate of exchange in England, which rendered it more advantageous to purchase bills for remittance from England than to transmit bullion; hence the limited character of the Mint operations. For the first time in the history of this Mint, rupees were exported as bullion to England during the year.

	1865–66.	1866–67.
	£	£
Value of—		
Mint Certificates issued - -	7,530,434	1,835,940
New coins paid into General Treasury	7,020,900	2,563,440

At Bombay also the Mint operations were of a limited character. The table annexed gives the amount of Mint certificates issued, and of the money coined, for the past two years. The excess of the new coin over the amount of certificates granted during the year under review is the coinage of unworked Government bullion which was on the Mint balance at the close of the year 1865–66.

The License tax, which was introduced at the close of 1866–67, and which is referred to under the head of "Legislation" in the earlier pages of this Report, has been modified, and assumes now more the form of a tax on income.

Public Works.

Bengal.

The hindrance occasioned to the prosecution of public works in Bengal in 1865–66 by the paucity of officers available for such employment during the Bootan campaign was mentioned in the Report (page 16) for that year; and in 1866–67 the work was paralyzed by a similar scarcity of officers in many places, owing to the great demand on the establishment occasioned by the relief works in Orissa, and that not merely by the number sent to that province, but also by the fact that those selected were picked men for the work. The Superintending Engineer of the Cuttack Circle was set free to give his undivided attention to the relief and embankment operations in Orissa, and the duties of Consulting Engineer to Government in respect of the East India Irrigation Company were reserved for a separate officer.

The water supply of Fort William has been brought into active operation. About 4,000 persons are daily furnished with a supply of 16 gallons per head, which, including all such uses as watering roads, flushing drains, &c., is a much smaller quantity than was anticipated. The cost of the water is about one fifth of that which would be paid for the same quantity supplied by water-carriers. It is now no longer necessary to employ for any purpose the brackish water of the river.

The enlargement of the Cartridge and Percussion Cap Factory at Dum-dum has been completed, and good progress has been made in remodelling the Gunpowder Factory at Ishapore.

The Sailors' Home for unemployed seamen has been completed, and as soon as the arrangements for the out-offices are finished possession will be taken of the building.

	1865–66.	1866–67.
	£	£
Imperial outlay -	761,501	779,695
From local funds -	163,585	96,247
By civil officers -	118,455	88,800
Total - £	1,043,541	964,742

The plans and estimates for the central jails in Bengal are still under consideration, but it is feared that the climate will not admit of their being constructed of such cheap materials as those in the North-west Provinces. The Central Penitentiary for European convicts at Hazareebaugh is nearly complete.

The expenditure on account of public works in Bengal was less by 78,799*l.* than in the previous year.

North-west Provinces.

	1865–66.	1866–67.
	£	£
Imperial outlay -	578,900	704,496
Local outlay - -	204,208	148,309
Total - £	783,108	852,805

The aggregate expenditure on public works in the North-west Provinces exceeded that of the previous year by 69,697*l.*, this increase having been in the outlay from the Imperial Treasury. In addition to the expenditure from local funds, a sum of 7,108*l.* was defrayed by private individuals on works of public utility. These consisted chiefly of

of wells alongside some road. As many as 195 such wells were constructed during the past year.

The principal military works in hand during the past year were the completion of new barracks at Agra and Morar for artillery, also some new barracks in the fortress of Gwalior. Final orders as to the size of the infantry lines for the new cantonment at Nowgong having been received, the construction of the buildings has been taken in hand.

Of civil works, new central jails were in course of construction at Benares, Allahabad, Futtehgurh, Bareilly, and Agra. The public offices at Allahabad have been delayed in consequence of certain ironwork required from England. No progress worth noting has been effected in the completion of the memorial church at Cawnpore, in consequence of the want of a qualified assistant as superintendent of the work, the executive engineer's time having been fully occupied in another channel.

A landslip occurred at the Mohund Pass on the road from Roorkee to Dehra, which overthrew one of the wings of a tunnel. At first it was determined not to restore it; but the treacherous nature of the soil prevented the execution of the work in open cutting, and tunnelling was found to be necessary. This work was successfully completed without any accident. The whole of the road between Agra and Bombay is now open, and the only works remaining are those necessary to prevent interruption to traffic in wet weather. Satisfactory progress has also been made in the Bundlecund roads during the past year.

	1865–66.	1866–67.
	£	£
Imperial outlay -	395,901	327,642
Local outlay -	25,250	115,000
Total - £	421,151	442,642

Central Provinces.

The expenditure on public works in the Central Provinces was greater than in the preceding year by 21,491*l.*, the increase being due to the large amount expended by the several local and municipal committees.

The heaviest expenditure for military buildings appears to have occurred at Jubbulpore, Saugor, Kamptee, and Nagpore, and good progress is reported on the works in hand. The Government of India having sanctioned the improvement of the defences of the fort at Seetabuldee, with permanent accommodation for the European garrison, the works have been commenced.

In civil works very satisfactory progress has been made in the advancement of the four central jails at Nagpore, Jubbulpore, Hoshungabad, and Raipore, in the construction of which convict labour appears to have been utilized to the utmost, with good financial results. The construction of permanent police buildings has been in abeyance, waiting a revision of standard plans. A handsome post office near the railway station at Nagpore was expected to have been completed in August 1867, and a new telegraph office at Jubbulpore is well advanced.

Among the miscellaneous and municipal improvements which have been commenced or completed during 1866–67 may be enumerated schemes for supply of water to the towns of Nagpore and Hinghunghat, a town hall at Jubbulpore, a clock tower at Hurdah, market places at Toomsur, Seonee, and Baitool. In addition to these, the example that has been set by public bodies towards improving street architecture, opening broad streets and squares in chief towns, has stimulated private individuals toward similar exertions, and it is reported there is hardly a town of any importance but has its drinking fountain, well, schoolhouse, dispensary, or some public building erected by private munificence.

Great efforts have been made towards completing the Godavery navigation works up to the first barrier, which, when finished, as it was expected to be by June of this year (1868), will throw open the river for use to a distance of 220 miles from the sea.

	1865–66.	1866–67.
From	£	£
Imperial Revenues -	583,818	702,226
Local Funds - - -	180,560	169,549
Total - -	764,378	871,775

Punjab.

The expenditure in the Punjab had increased by 107,397*l.* Of the whole sum assigned for this purpose a large proportion, or about one half, was expended on works connected with military buildings, roads, and bridges; and as much as 50,000*l.* had been disbursed on account of miscellaneous public improvements out of local funds.

Hyderabad assigned districts.

A sum of 77,950*l.* had been expended on Public Works in the Hyderabad assigned districts, against 65,928*l.* in 1865–66; the bulk of which was for civil buildings

buildings and local works, amounting together to 45,051*l.*, and as much as 22,534*l.* was spent in the construction of necessary roads required for these districts, in which satisfactory progress has been made, considering the difficulties existing in the black yielding soil of Berar. Of the Civil buildings completed may be mentioned two court houses, with offices attached; a jail capable of containing 500 prisoners, and several police stations, &c. The municipal expenditure of the past year amounted to 32,755*l.*, but the work was generally of a petty nature. The only city of any size or consequence is Oomrawuttee, where several large schemes have been taken up. Conservancy establishments have been maintained in all towns of any size or importance; and in most parts of Berar the number of local schemes pressing for early execution was very great.

During 1865, partly from want of labour, and partly from causes over which there was no control, public works in British Burmah had been much impeded, but in the following year satisfactory progress had been made under all heads except military.

	1865–66.	1866–67.
	£	£
Imperial outlay - -	182,081	183,066
Local outlay - -	30,788	67,000
Total - -	212,869	250,066
Imperial outlay for Port Blair - - -	45,006	28,984

The expenditure in British Burmah during the last two years contrasted favourably, particularly in comparing the outlay on local works with that in the previous year, which may be considered sufficient evidence of the energy displayed in pushing on improvements during the year under review.

Among the miscellaneous public improvements which have taken place in these provinces, at the expense, principally, of the municipalities, it may be stated that at Rangoon, besides the construction of roads, streets, and drains, planting and watering of trees, &c., the whole expenditure for the eleven months ended 31st March 1867, for municipal improvements, amounted to 33,000*l.*, nearly at the rate of 3,000*l.* a month, which was considered a very large sum for so young a town to afford. The main pier at Akyab has been completed, and has already been used by ships.

Expenditure.	1865–66.	1866–67.
	£	£
Imperial outlay - -	639,684	620,400
From local sources -	54,133	84,209
Total - -	693,817	704,609

In the Presidency of Madras as much as 704,609*l.* had been expended on works of public utility, exceeding the outlay during twelve months of the previous year by 10,792*l.* The imperial outlay, as shown in the margin, does not include advances to civil officers.

Rates of labour increased in almost all the districts, in consequence of the high prices of the common necessaries of life.

The new Central Jail at Rajahmundry has been completed, also one at Coimbatore.

Railways.

Several events occurred during 1866–67, both in England and in India, to disturb the progress of railways. In this country financial disasters tended much to check the raising of capital, and in India commercial difficulties interfered with the development of traffic. At the same time, however, the construction of lines of railway was not allowed to be impeded by the deficiency of funds of some of the companies, the Government having readily come forward with the necessary advances.

At the commencement of the year 1866 there were 3,331 miles of railway completed, since then 306 additional lines had been finished, making a total of 3,637 miles open for traffic on 1st May 1867; and leaving 2,005 miles to complete the net work of railways sanctioned for India. An addition of 7,750,000*l.* had been made to the capital expenditure, which on the 1st April 1867 reached a total of nearly 68,000,000*l.* The materials sent out during the year under review amounted to 326,845 tons, of the value of 2,658,357*l.* The aggregate quantity of goods sent, for the use of railways in India, from this country, had reached 3,195,862 tons on 1st January 1867, costing about 20,200,000*l.* in round numbers.

The following table exhibits very favourably the traffic operations of all the railways in India for the past two years.

The

Years ended 30th June	Gross Receipts.	Working Expenses.	Net Receipts.	Number of Passengers.	Receipts from	
					Passengers.	Goods, &c.
	£	£	£		£	£
1866 -	4,537,235	2,225,495	2,311,740	12,867,000	1,278,580	3,091,723
1867 -	4,898,727	2,563,309	2,335,418	13,738,472	1,446,426	3,314,903

The Indian Branch Railway has now become a guaranteed Company, and its designation has been changed to that of the "Oude and Rohilcund Railway Company, Limited." A portion of their line, from Lucknow to Cawnpore, was opened for traffic in May of last year.

The line of railway between Allahabad and Jubbulpore, a distance of nearly 90 miles, was also opened for traffic on the 1st August 1867, but in consequence of the failure of some of the works, the opening of the Great Indian Peninsula Railway, which joins the East Indian line at the latter place, and which was expected to have been finished by the close of 1868, has been delayed.

A serious accident occurred on the Great Indian Peninsula Railway by the fall of the Mhow-kee-Mullee viaduct on the 19th July last, which might have terminated more disastrously, but fortunately no loss of life or injury to any person was experienced. Every means were taken restore the communication without loss of time. This viaduct formed part of the Bhore Ghat incline, the traffic on which had been conducted since 1863, and originally cost something under 45,000*l.* The new viaduct, which is to replace it, is estimated to cost about 36,000*l.*

Her Majesty's Government have sanctioned the construction of a new passenger station or terminus at the Presidency town in consequence of the increasing growth of the traffic on the Madras railway. An eligible site near the people's park, and not far from the company's present goods station, has been selected, and the ground has been cleared for the purpose. The removal of this terminus to a more central locality will enable the traffic operations, both in goods and passengers, being conducted with greater economy and convenience.

The Government Director of the Indian Railway Companies (Mr. Juland Danvers) in his report for 1866–67 writes that "in spite of commercial depression "and monetary disasters, of drought and famine, of unprecedented floods and "destructive inundations, the works under construction have steadily progressed "and the traffic has increased. A larger expenditure has taken place than in "several proceeding years, the revenue has been greater than at any previous "time, and the effects of the railways upon the general prosperity of the country "have been abundantly manifested, whether regarded in relation to its material "progress, to the comfort and convenience of the people, or to their social "improvement."

Telegraphs.

The total number of miles of Government Telegraph throughout India open on 31st March 1867 was 13,371, of which 11,826 miles were single lines. The amount of capital, including the outlay, during the year, was 1,081,676*l.* The total receipts for the year amounted to 142,978*l.*, and the expenditure for maintenance and repair, &c. was 136,275*l.*, thus leaving a profit of 6,703*l.* The number of messages transmitted was 29,444 on account of Government, 239,422 private, and 10,200 free messages, making an aggregate of 279,066 messages. The value of messages transmitted was 103,490*l.*, against 102,021*l.* in 1865-66, being an increase of 1,471*l.* This increase appears to have been smaller than was expected, and is attributable partly to the peculiar stagnation of trade during the year. The average cost of a message was 7*s.* 8*d.*

The number of Indo-European messages amounted to 24,455, giving a monthly average of 2,223, against a total number of 27,517 and a monthly average of 2,293 in the preceding year.

A new system of accounts, similar to that in use in the Public Works Department, has been established, by which a more speedy audit and adjustment of

subordinate officers accounts has been attained, besides enabling a better check being kept on expenditure by the head office.

In June 1866 an attempt was made by a wealthy banker in Ajmeer to bribe the telegraph officer in charge, to divulge the information contained in the opium messages received at that station. It was duly reported, and the offenders were subsequently convicted, and punished by a fine of 400*l.*, with six months imprisonment. The Government employés were rewarded for their conduct on the occasion.

The new cable between India and Ceylon was successfully laid in January 1867 in two sections, the one, being 29 miles in length, was laid across Palk's Straits from Talamanaar Point in Ceylon to the temple of Rameseram on the Indian side, from this last point a land line is carried across the island of Rameseram to the Paumbem telegraph office, a distance of about 10 miles, whence two separate cables, each a mile and a half in length, cross the channel completing the communication with the main land. The tests that were applied after the cable was laid gave very satisfactory results.

During 1866-67 a second wire was completed between Deesa and Hydrabad in Sind, a distance of 319 miles, in the short space of three months. This line forms part of the two main lines to Bombay and Calcutta, and will ultimately no doubt require four lines as the traffic on them increases.

Besides the foregoing, the line from Deesa to Ahmedabad, 98 miles in length, was also fitted with two wires, as was also the section from Bombay to Surat, of 168 miles.

The line between Kurrachee and Hydrabad had also been doubled during the year under review. It is expected that this section will be obliged to have six wires, in consequence of the whole of the Indo-European traffic passing along it. In the completion of the double line between Kurrachee and Bombay, that portion between Ahmedabad and Surat by Broach was expected to be finished in May 1867.

At Deesa, where the Indo-European messages for Calcutta will branch off viâ Agra, a distance of 473 miles, so as to complete the communication, a second wire has been erected. The old line of telegraph from Allahabad to Agra, 324 miles in length, formerly conducted along the grand trunk road viâ Cawnpore to Futtehgurh, thence by Mynpoory to Agra, has been removed, and a new line has been constructed alongside the railway, by which a saving of 44 miles has been effected; and a new line containing four wires has also been completed between Allahabad and Mogul Seraie, a distance of 102 miles.

In Bombay town the signal office has been removed from Colaba to the Fort, a change which has been highly appreciated, as one of great public convenience.

The only important work in Madras Division was the completion of the Hyderabad and Bezwarrah line, which had to be thoroughly reconstructed.

In the Central Provinces an entirely new line of telegraph has been constructed along the road between Nagpore and Chanda, a distance of 103 miles, with a branch to Hinghunghat, which is the principal cotton mart in these parts. At this last place a telegraph office was opened early in 1866, affording great convenience to the cotton trade, whence a telegram was despatched to Liverpool, reaching its destination in 38 hours.

Telegraphic communication was much interrupted during the past year in British Burmah, arising from injuries caused by jungle fires, storms, or wild beasts. A new cable has been laid between Moulmein and Martaban.

Irrigation and Canals.

Bengal. A large quantity of work has been done to the embankments in Orissa, partly in consequence of the necessity for affording relief to the distressed population, and partly on account of the great damage done by the unusual floods.

With the view of properly regulating and controlling the large streams of that province, and of deciding what works should be entrusted to the East India Irrigation Company, a committee, consisting of the Commissioner of the division, the Chief Engineer of the Company, and the Superintending Engineer of the Cuttack Circle, was appointed to report on the subject; and survey parties were authorized for the collection of the necessary data.

The

The better regulation of the floods of the Damoodah, Roopnarain, Selye, and Cossye rivers has also engaged the attention of the Government; and Lieutenant Heywood was employed in the cold season to explore the upper reaches of the Damoodah and its tributaries.

The works of the East India Irrigation and Canal Company have made considerable progress, with the assistance of the funds advanced for this purpose from the Government treasuries. The principal works in course of construction are: the Naraje weir which is to regulate the quantity of water to flow into the Mahanuddy and Katjooree rivers respectively; the Kendraparah and Taldunda canals and Machgaon branch which were in progress; the High Level canal, into which the water has been let for a length of 11 miles; the Midnapore canal, which is open for 20 miles, between Oolobariah on the Hooghly and Panchkoorah on the Cossye; and the Tidal canal which admits of inland navigation from Calcutta to Baligai, within 25 miles of Jellasore.

A special officer has been appointed as Consulting Engineer to the Government of Bengal in respect to the Company; and, at the solicitation of the Company, a Deputy Collector, paid by them, has been selected to explain to the people the advantages which will arise to them from the use of artificial irrigation.

North-west Provinces.

The Ganges canal consists of 653 miles of main canal and 2,968 miles of distributing channels. The gross income shows an increase of $11\frac{3}{4}$ per cent. over that of the previous year, of the total income $92\frac{1}{4}$ per cent. was derived from water rate, and $7\frac{3}{4}$ per cent. from miscellaneous sources. The total area irrigated was 633,774 acres. The water rate per acre averaged about 4*s.* 6*d.* per annum. The Orissa famine created a considerable traffic in grain, of which, it was estimated, about 8,000 tons must have passed down the canal during the last nine months of the year 1866–67.

The operations which have been carried on towards improving the outfall of the Solani river, and so obviating the mischief effected to the Ganges Khader drainage works, have been most successful; its floods have been controlled, and were employed in silting up swamps, instead of devastating the Khader lands; and drainage cuts have been formed for the relief of marshy lands in the upper portion of the valley.

The Eastern Jumna canal is 130 miles in length, with 596 miles of distributing channels. The gross income for the year exceeded that of 1865–66 by 25 per cent., partly due to the fact of cultivators having become more reconciled to the enhanced water rates, which at one time gave a check to irrigation. The water rates remain the same, and the areas irrigated were 82,137 in 1865–66 and 157,398 acres in 1866–67.

The Doon canals comprise five small canals in the Dehra Doon, aggregating 57 miles in length, with 10 miles of minor channels. The increase in the gross income was $20\frac{1}{2}$ per cent. over the previous year, arising from the fact already named. The areas irrigated were 3,577 acres in 1865–66, and 7,047 acres in 1866–67.

The total number of miles comprising the Rohilcund canals is 153. This does not include the Kylas canal, which is not yet finished. The gross revenue showed an increase upon that of 1865–66 of 51 per cent., and was nearly equal to the revenue obtained in 1864–65, the largest yet realized. In addition to those above named, there are two other canals, but one of them was closed while the head works were being repaired.

The Agra irrigation works, which consist of the Futtehpore Seekree reservoir and the channels leading therefrom, appear to have been unused for sanitary and other reasons during the past year. The escapes were left open, and no water was stored.

The Humeerpore irrigation works comprise one lake at Jeitpore and seven lakes at Mahoba; the first aggregate seven miles in length, while the latter have 25 miles of watercourses. The gross revenue showed an increase of $21\frac{1}{2}$ per cent. over the preceding year.

Central Provinces.

In the Central Provinces the progress that was hoped for in irrigation works had not been realized. Of the schemes selected, estimates for the Saonair alone were submitted; but the project was practically valueless from its great cost. The management of the irrigation division has passed into other hands, whence better results were looked for.

Madras.

In the Madras Presidency the operations of the main canal from Soonkasala to Cuddapah, a length of 188 miles, had come to a standstill. The Madras

Irrigation and Canal Company, having expended more than nine tenths of the guaranteed capital, were obliged to suspend works until their appeal for assistance to the Secretary of State for India met with a favourable result. It was arranged, under certain conditions, that a sum of 600,000*l.* should be advanced to the Company, and accordingly, upon the contract being signed on the 6th October 1866, the Company at once resumed operations, though only to a trifling extent, at the close of the year.

Agriculture.

Exhibitions, fairs, &c.

In consequence of the distress which was felt throughout the Bengal Presidency, no exhibitions were held during the past year except one at Tezpore in Assam, on the 27th December 1866. Though the exhibition was reported to be successful, yet the result was not such as to justify its repetition in this part of India, except it might be in connexion with a local fair, when perhaps the people might be induced to attend in greater numbers, and more readily exhibit their products. The expenses of this exhibition amounted to 239*l.*, and the assets realized only 123*l.*

Towards the close of the year an exhibition of the agricultural and industrial products of the North West Provinces was held at Agra, and the opening ceremony took place on the 4th February 1867. The success that was attained was far greater than was anticipated; the contributions of exhibitors exceeded the almost extravagant space which had been provided. The admission was free to all, excepting on the days of opening and closing; and the presence of large crowds of women and children of the agricultural classes was a satisfactory indication both of the freedom of access, and of the readiness with which the people availed themselves of it. Every endeavour had been made to popularize the exhibition; to enable the people to understand that the aim of the Government was simply to promote their general good; and the effect produced upon the Native mind was something considerable. The total cost of this exhibition was somewhat less than 25,000*l.*, of which 2,500*l.* had been received from the Imperial and 2,500*l.* from the Local Government; the remainder had been contributed from local and municipal resources.

Agricultural exhibitions had also been held during the year at Bareilly, Seharunpore, Dehra Doon, and Oraie; the first of these was particularly interesting, from the intelligent share taken in the proceedings by most of the leading gentry of the province. The steam engines and machinery imported for drainage and irrigation works attracted great attention, and were exhibited in full work.

The Etawah Fair, although of a totally different character to the exhibitions previously noticed, is a mere Native fair, possessing peculiarities of itself, and not altogether devoid of interest. Unlike other great fairs held in these provinces, it is neither hallowed by antiquity nor sanctified to the people by any superstitious feelings. It has no shrines, nor is it a place of pilgrimage, and originated spontaneously in the desire of the inhabitants to celebrate the opening of a new square in the centre of the city constructed principally from their own contributions, being surrounded by the High School, Public Offices, the Civil Court, the Hospital, various markets and shops, the whole promising to form, when complete, a *tout ensemble*, which, for its cleanliness, neatness, and convenience, will be unequalled in these provinces. During the past year the fair was specially successful; it lasted 15 days, during which time nearly 70,000*l.* worth of European and Native manufactured goods were disposed of by retail, and it is supposed that there were no less than 200,000 visitors. No accident, contretemps, or crime is said to have occurred, affording most striking proof of how much may be effected under judicious direction, through the agency of the people themselves; for the whole of the arrangements were entrusted to the Native municipality.

The fair that is annually held at Hurdwar, taking its name from this town, and situated on the banks of the Ganges, near Roorkee, is a well-known Hindoo place of pilgrimage, where a large concourse of people assemble for the purpose of bathing in the sacred stream, and for other religious ceremonies. Every twelfth year it assumes large proportions, and during the past year it was computed that their numbers, on the great bathing day, did not fall far short of 2,885,000. Every possible measure was taken by the officers of the Government to ensure comfort to the people, and to avoid anything like confusion, special attention

attention having been paid also to the conservancy and sanitation of the various camping grounds. The principle of the Dry Earth Conservancy (alluded to under the head of Sanitary in this Report) was generally adopted. A large body of police was drawn from neighbouring districts, for the preservation of order and prevention of crime, and the heavy and responsible duties which devolved upon them were discharged with the greatest efficiency and success. The people resorted to them with confidence in their difficulties, gratefully acknowledging the attention received from them.

The marked success which attended the Nagpore exhibition, held in December 1865, led to the holding of a similar display at Jubbulpore in 1866, to which allusion was made in last year's Report (page 29), the result of which last was equally favourable as on the former occasion. In some branches of manufacture there was a decided improvement in the Jubbulpore as compared with the Nagpore exhibition, particularly in those departments of industry which received European supervision. Among cattle breeders and growers of produce, much encouragement and instruction was also derived. These displays have been instrumental in bringing landowners to purchase and use hydraulic and agricultural machinery, some of which are actually at work in towns and villages of the different districts. As evidence of the interest taken in machinery generally, nearly 5,000*l.* worth of articles shown in this department were purchased.

The visitors to the Nagpore exhibition consisted chiefly of people from districts round Nagpore, and from the whole country below the Sautpoora Hills, with a few of the wealthier inhabitants of the Saugor and Nerbudda territories, but none of the middle class of these parts, such as landowners and traders, were present. These people, who as a class are well to do and intelligent, came in crowds to the Jubbulpore exhibition. Koonbees and Lodhees from the Nerbudda Valley; Rajpoots from the borders of Bundelcund and Baghelcund; Gonds and other aboriginal tribes from the wilds of Mundla and Seonee, were also present on the latter occasion.

The satisfactory result attending the annual exhibitions of cattle and agriculture at Addanky and Nellore in the Madras Presidency has led to a similar display at Calicut and Machery, they were well attended, and promised well for the future.

An attempt was made to exhibit agricultural machinery, produce, and stock in February 1867 at the annual Mhyjee Fair, in the Khandeish Collectorate of the Bombay Presidency, which was attended with moderate success. Owing to the lateness of the season at which the sanction of Government was obtained, it was not found practicable to obtain machinery from England, but several implements were however exhibited by a firm at Bombay. Those which attracted greatest attention from the assembled agriculturists were the several descriptions of machinery for lifting water for irrigation purposes, and the winnowing machine, also the chaff cutter and the grain bruiser. Two of these winnowing machines had been purchased by the Collector, and sent into the wheat districts of the Taptee Valley, where it was expected they would soon pay their expenses on being worked for their hire.

A great improvement was also visible in the show of horses. The produce of the Government stallions excelled those of past years. Every effort was made to divest the Native mind of the idea that Government would claim the foals from mares served by their stallions. Time alone will secure confidence in the measures taken by Government for improving the breed of horses.

The prizes for cattle were warmly competed for; about 1000 head were exhibited, and among them some very fine animals.

Among the articles of produce exhibited were some fine specimens of sugar-cane, wheat, indigo, and the common grains of the country, but the most important of all was cotton.

In connection with this subject, the establishment of a model farm has been suggested, with a view of introducing and acclimatizing foreign products, improving breeds of horses, cattle, &c., and practically teaching the ryots the use of machinery and improved modes of agriculture; but the information being considered insufficient, the Government has not sanctioned the proposition.

During the past year, a commission was appointed to inquire into the present condition of the tea districts in Bengal. The commission was to consist of three members selected by Government, and to be entirely unconnected with the planting interest, so as to be perfectly free from any bias upon the subject, with

Tea.

an additiona. member representing the interests of the planter, appointed by the British Indian Association. The object of this commission was to collect every information bearing on the prosperity or otherwise of the tea plantations, and on the treatment and condition of the labourers employed on the estates. The necessity for taking this course arose from a previous inquiry which had been instituted respecting the mortality which had of late years occurred among emigrants despatched to the tea plantation, in reply to the request for labourers; and from the planters having complained of the want of proper care and attention to their health and comfort on the sea passage thither, and that the regulations laid down by Government had failed in reducing the death-rate.

The employment of Native labourers in Assam, Cachar, and Sylhet having been much commented on, various proposals were made, with the view of making the contract lighter to the labourers, and of relieving the employer of labour from some of the burthens laid upon him by existing laws. Fresh legislation is, however, deferred until the report of the commission has been received.

Assam.	1865.	1866.
Area under tea cultivation	Acres. 45,827	Acres. 43,500
Out-turn of tea - -	lbs. 2,571,680	lbs. 2,938,563

The figures in accompanying table can only be approximately rendered, as there appears to be a great difficulty in getting any authentic information in a collective shape, from the unwillingness always exhibited by the planters in supplying it. Out of 477,576 acres of land held for tea planting, only 43,500 was under actual cultivation in 1866. An increase, however, of 366,883 lbs. was visible in the out-turn as compared with the previous year.

Cachar.	1865–66.	1866–67.
Area under cultivation -	Acres. 20,005	Acres. 20,906
Out-turn of tea - -	lbs. 927,825	lbs. 1,722,068
Sylhet.	Acres.	Acres.
Area under cultivation -	3,145	2,210
Out-turn of tea - -	lbs, 172,130	lbs. 169,600
Darjeeling.	Acres.	Acres.
Area under cultivation -	9,829	7,986
Out-turn of tea - -	lbs. 335,481	lbs. 371,174

The total area of land applied for and granted in Cachar was 453,997 acres, of which 20,906 acres apparently have been actually cultivated, and the out-turn of tea has increased by 794,243 lbs. There are many gardens in this district whence no returns have been received.

The information in respect to this cultivation in Sylhet was also incomplete. A comparison of results is shown, however, annexed, from such returns as were available.

In Darjeeling the number of factories had decreased by 8, and the acres under cultivation by 1843. This decrease was explained by the fact of there having been little or no extension during the year under review, and to cultivated lands of the poorer sort having been purposely allowed to relapse into jungle. The actual out-turn, however, appeared to have been favourable.

Tea is also cultivated in Dacca, Chittagong, and Chota Nagpore. The quantity exported from Calcutta amounted to 6,936,843 lbs. against 4,581,830 lbs. in eleven-twelfths of 1865–66, being an increase to the extent of 2,355,013 lbs. Although tea planting had been successful in the north of Arracan, yet the difficulty of obtaining labour discouraged capitalists in coming forward.

The Deputy Commissioner of Kangra, in his annual report on the cultivation of tea in that part of the Punjab, remarks that great improvements are apparent on the estates held by European planters. Year by year the cultivation is extended; and by a system of high culture, already introduced in many of these estates, the quality of the tea is getting better and better, and will gradually reach a point of excellence as to make it more popular in the market. Tea planting in the Murree hills has, after a series of trials, proved a failure, and the Government experimental plantations have been finally abandoned.

Opium.	1865–66.	1866–67.
Extent of land taken -	Acres. 275,784	Acres. 289,062

In consequence of the authority given for the extension of opium cultivation, the total quantity of land taken in Bombay exceeded that in 1865–66 by 13,278 acres. The out-turn of the season was estimated at 48,500 chests of provision opium, and 3,523 chests of abkarree opium. And in Behar and Benares the area had increased from 700,000 to 750,000 acres.

The

Chinchona.

The total number of Chinchona plants existing in Government plantations of the Bengal Presidency amounted to 782,048, and in those of private companies to 232,778. There were 1,194 plants of C. Succirubra distributed to planters in Darjeeling during the year 1866–67; 600 were despatched to Chittagong in furtherance of the experimental cultivation carried on in that district; 300 plants were also sent to the Saharunpore Botanical Gardens; and 650 to the Cossyah Hills, where a nursery had been formed for the introduction of Chinchona by private individuals in Assam. In the Madras Presidency the average number of plants propagated recently increased to 48,968; there are now 557,551 trees planted, the oldest of them being as much as from 15 to 22 feet in height; they have blossomed freely, producing excellent and abundant seed. The increase in alkaloids is so great as to be altogether unprecedented in the finest samples of mature American bark.

Cotton.

Years.	Acres Cultivated.	Yield in lbs.
1861	953,076	95,980,000
1862	985,578	84,618,800
1863	1,135,688	89,764,080
1864	1,730,630	156,619,040
1865	885,102	65,963,200
1866	1,112,677	83,696,960

The accompanying table shows the area under cotton culture in the North-west Provinces, and the estimated yield of the crop for the past six years. The confidence regained by the growers has evidently led to a reaction in the year 1866, for, though the cultivated extent be less than in 1863 and 1864, the area was greater than that in 1861 and 1862. The cultivation of the acclimatised New Orleans seed lately imported into these Provinces, and distributed among cultivators, was not popular with the Native agriculturists, from the fact of its requiring more expenditure and attention than the indigenous article. It has nevertheless proved successful, where carefully sown, watered, and looked after.

The season of 1866–67 was generally favourable to the cotton crop in the Central Provinces, and the out-turn, both as to quantity and quality, was better than had been known for some years. The increase in the amount of land sown was 24,324 acres throughout the whole province. The recent general fall in the price of this article had more effect in contracting sowings in the Nerbudda Valley than in the Nagpore country, on account of its inferiority, as contrasted with the latter. Hence cotton was displaced by cereals, which ruled extraordinary high prices at the sowing season of 1866. The average yield per acre has been estimated at about 55 lbs. in the Wurdah Valley, and at about 42½ lbs. in other parts of these provinces, which estimate has been confirmed from several carefully conducted experiments. Towards the further development of the cultivation and trade of cotton in these parts, a Cotton Commissioner was appointed in September 1866, under whose guidance and instructions considerable improvement may be expected in the culture of the indigenous article. Gardens were also being established under Government officers, with the object of securing first-rate seed from pedigree cotton. It was in contemplation to extend certain portions of the Cotton Frauds Act of Bombay to these provinces.

Years.	Acres Cultivated.
1864–65	690,198
1865–66	587,398
1866–67	611,722

Besides cotton, the principal produce of the Central Provinces consists of wheat, rice, millet, grain, oilseeds, sugarcane, tobacco, and opium.

A Cotton Commissioner was also appointed for the Hyderabad assigned districts. The out-turn of cotton in Berar may be approximately estimated at 33,616 tons; the average price of the year was 11*d.* per pound; and the wealth involved in this traffic was valued at about 3,750,000*l.* While the crop in 1866 was held to be much according to the average of several preceding years, that for the season of 1867 was said to have a prospect equally good; thus it would seem that the culture of this staple, so much stimulated by the late American war, was still well maintained.

Laudable efforts have been made for the introduction of the best description of Hinghunghat seed. The people of Berar were at first shy of accepting this seed, confusing it in their minds with other foreign seed, of which they entertained no favourable impression. But this difficulty had been overcome, and many thousands of pounds of Hinghunghat seed had been distributed by the Cotton Commissioner.

The traffic to and from Khamgaon, where a market was in course of construction, will be much facilitated by the opening of a new station on the railway at Jullum, about seven miles from the town.

In British Burmah cotton is grown to a limited extent. The area cultivated fell from 110,000 to 7,000 acres in 1866–67.

The principal product of this province is undoubtedly rice, the estimated area cultivated was 1,881,202 acres, as compared with 1,563,380 acres on which revenue has been paid for rice crops in 1865–66.

Tobacco is also grown in British Burmah, but not to any great extent.

Years.	Acres cultivated.
1860–61 - -	1,060,558
1861–62 - -	977,728
1862–63 - -	1,362,438
1863–64 - -	1,824,763
1864–65 - -	1,742,078
1865–66 - -	1,516,076
1866–67 { eleven months	1,375,425

The cultivation of cotton in the Madras Presidency has decreased nearly ten per cent., but its extent was nevertheless greater than in 1862–63, or any previous year. This decrease may be said to be partly owing to the scarcity which prevailed in certain districts, and partly to the enhanced price in cereals, two causes naturally inducing cultivators to that kind of produce which would probably pay the best. At the same time, the average price had increased from 7¼*d.* to 7¾*d.* in 1866–67, throughout the presidency. The districts in which the heaviest fall of price occurred were Madras, North Arcot, and Tinnevelly. The export trade of this article also fell considerably.

Successful experiments have been made in Madras Presidency towards the introduction of Carolina rice, which is said to possess great advantages over the indigenous varieties of this produce, and the seed was in great request.

The season of 1866–67 had been much more favourable for the cultivation of cotton in both the northern and southern divisions of the Bombay Presidency than its predecessor, and the crops were expected to be of a superior kind in both quality and fibre.

—	1865–66.	1866–67.
Acres cultivated - -	1,710,797	1,978,182
	Actual.	Estimate.
Out-turn of cleaned cotton in lbs. - - -	85,595,797	116,383,876

The aggregate extent of cultivation showed an increase of 267,385 acres over that of the previous year, while the estimate of the out-turn, taken at a careful and moderate computation, exceeded by 30,788,079 lbs. the actual out-turn of 1865–66. This increase in yield would represent, at 250 rupees the candy of 784 lbs., or about 7½*d.* a lb., a sum equal to 962,128*l.*, and the out-turn of the whole season's crop, at the same rate, would amount to upwards of 3,500,000*l.*

The average yield of exotic cotton in the northern division was, in 1865–66, about 30 lbs. per acre, and of indigenous or native cotton 60 lbs. In 1866–67 it was 70 lbs. per acre for exotic and 59 lbs. per acre for the native.

In the southern division, however, the average yield per acre of exotic cotton was 66 lbs. against 60 lbs. in 1865–66, and of 49 lbs. against 43 lbs. per acre of indigenous cotton in the respective years under review.

The extraordinary difference in the yield per acre of exotic cotton in the northern division between the two periods mentioned was attributable to the Collector of Khandeish having imported a superior seed from Berar, which, until properly acclimatized, had yielded but a small quantity, and the favourable season of 1866–67 had greatly helped to increase the average yield.

The acting Cotton Commissioner for the Bombay Presidency reports that there can be no doubt but that India is making rapid strides towards improving its cotton, and that in the past year more had happened to discourage improvement than had been the case in any one season since the commencement of the late American war drew special attention to India as a cotton producing country.

Trade.

Imports.	1865–66. Twelve Months.	1866–67, ended 31st March.	1866–67, ended 30th April.
	£	£	£
Merchandise - -	29,599,228	29,038,715	30,639,282
Treasure or bullion - -	26,557,301	13,236,904	14,598,051
Total - -	56,156,529	42,275,619	45,237,333

Bearing in mind the alteration in the date of the past official year, and in order to obtain a fair and just comparison with 1865–66, as to the actual progress or retrogression of trade, three periods are given in accompanying table, from which it will be seen that a considerable falling off appears to have taken place in the gross import trade during the year under review, amounting to 13,880,910*l.* in the eleven months ending 31st March, and to 10,919,196*l.* to the end of April 1867.

The

The decrease is mainly in the treasure imported, amounting to 11,959,250*l.* for the twelve months ending 30th April 1867. In the merchandise imported during the same period there was an actual increase of 1,040,054*l.* over 1865–66.

The following table will show some of the principal articles in which there has

Principal Articles.	Years ended 30 April 1866.	1867.	Principal Articles.	Years ended 30 April 1866.	1867.
	£	£		£	£
Arms and ammunition	77,503	87,739	Provisions and oilman's stores	286,567	318,806
Coal and coke	466,805	549,873	Salt	265,289	396,006
Cotton twist and yarn	1,961,144	2,636,181	Silk goods	357,380	438,718
Cotton goods	11,849,214	15,189,314	Spices	137,189	303,007
Dyes of all kinds	64,271	121,586	Spirits	416,592	420,729
Horses	37,071	51,869			
Machinery of all sorts	586,182	644,938	Sugar and other saccharine matter	563,305	582,332
Malt liquors	528,485	576,518			
Metal manufactures	647,205	737,436	Tobacco, cigars, &c.	70,909	101,309
Metals, raw: Iron	488,374	560,944	Umbrellas	65,895	73,519
Metals, raw: Spelter	60,866	93,998	Woollen goods	583,132	594,102
Metals, raw: Steel	24,862	65,678			
Metals, raw: Tin	93,231	236,532			

been an increase. Railway, telegraph, military and naval stores, which form large items in themselves in the imports of India, have not been taken into consideration, not being regarded as articles of commerce.

Of other principal articles imported during the year, the following table will best exhibit those in which there was a falling off.

Principal Articles.	Years ended 30 April 1866.	1867.	Principal Articles.	Years ended 30 April 1866.	1867.
	£	£		£	£
Apparel	510,352	410,588	Metals, raw: Copper	1,322,874	928,806
Beads	57,969	51,502	Metals, raw: Lead	41,339	36,411
Books, stationery, &c.	375,381	307,312	Paints, colours, &c.	96,802	83,178
Carriages	122,115	37,106	Perfumery	32,117	28,746
Drugs, medicines, &c.	153,904	151,838	Porcelain and earthenware	91,368	60,900
Fruits, nuts, and vegetables	392,446	229,660	Silk, raw	511,239	446,817
Glass-ware of all sorts	248,539	137,655	Tea	186,310	150,802
Gums	63,971	49,948	Timber and woods	132,641	63,770
Ice	61,994	24,997	Wines and liqueurs	474,344	461,254
Jewellery and precious stones, clocks, &c.	952,996	398,379			

Exports.	1865–66. Twelve Months.	1866–67, ended 31st March.	1866–67, ended 30th April.
Merchandise:	£	£	£
Indian produce, &c.	62,684,452	40,773,959	46,551,256
Foreign do.	2,806,671	1,086,035	1,178,356
Total	65,491,123	41,859,994	47,729,612
Treasure or bullion	2,165,352	2,431,503	2,473,165
Total exports	67,656,475	44,291,497	50,202,777

In the gross export trade of India there was a decrease to the extent of 17,761,511*l.* in merchandise, but an increase in treasure of 307,813*l.*, leaving a net decrease of 17,453,698*l.*, to which if the decrease in the import trade to the same date be added there will appear to have been an aggregate falling off in the total trade of 28,372,894*l.*, or nearly 23 per cent. as compared with 1865–66, and 19 per cent. when compared with 1864–65.

The decrease in exports has been principally in the articles enumerated in the following table.

Principal Articles exported.	Years ended 30 April 1866.	1867.	Principal Articles exported.	Years ended 30 April 1866.	1867.
	£	£		£	£
Coffee	785,102	506,093	Oils	133,859	116,209
Cotton wool	35,587,389	19,756,489	Saltpetre	605,350	336,365
Cotton goods	1,732,133	1,275,575	Spices	163,008	142,053
Drugs	90,998	63,301	Sugar and other saccharine matter	361,362	168,406
Grain rice	4,909,562	3,791,296			
Ivory and ivory-ware	92,402	87,413	Timber and woods	369,523	156,418
Jute	771,691	751,222	Wool	871,314	799,767
Lac	305,575	169,908			

The subjoined table will show the articles in which there has been an increase.

Principal Articles exported.	Years ended 30 April		Principal Articles exported.	Years ended 30 April	
	1866.	1867.		1866.	1867.
	£	£		£	£
Dyes, including indigo	1,958,862	2,036,764	Seeds of all kinds	1,750,197	1,913,906
Grain, except rice	338,356	377,638	Silk, raw	745,352	962,861
Gums	20,765	23,657	Silk goods	88,829	100,697
Gunnies and gunny-bags	311,831	443,301	Tea	309,899	410,141
Hides and skins	609,803	752,891	Tobacco of all kinds	52,722	56,142
Opium	11,122,746	11,326,039			

	1865–66.		1866–67.	
	Ships.	Tons.	Ships.	Tons.
Foreign Trade:				
Entered	5,865	1,958,168	5,438	1,932,073
Cleared	6,354	2,202,300	5,864	2,000,848
Total	12,219	4,160,468	11,302	3,932,921
Interportal Trade				
Entered	19,005	1,737,196	13,287	1,511,216
Cleared	17,177	1,723,720	11,340	1,630,793
Total	36,182	3,460,916	24,627	3,142,009

In the number of vessels and tonnage, whether British or Foreign, engaged in the conveyance of the trade of the year, there was a decrease of 917 vessels, with a tonnage amounting to 227,547, from and to all parts, foreign to the continent of British India. Besides the number employed in this external trade, there were 24,627 vessels, with a tonnage of 3,142,009, occupied in the coasting trade of India, being 11,555 vessels, with a tonnage of 318,907 less than in the preceding year.

The interportal trade of Calcutta, both in imports and exports, had fallen off during the past year, amounting to 1,086,414*l.* in the aggregate, and was attributable to over speculation and mercantile failures.

In British Burmah, the value of the port to port trade decreased to the extent of 918,454*l.* The rebellion of 1866 in Upper Burmah, together with the depressed state of the rice and timber markets, combined to affect the trade of these provinces.

The interportal trade of Madras increased by 281,461*l.* during the eleven months of 1866–67, as compared with the whole period of the previous year.

The decrease in the aggregate trade of the port of Bombay with other parts of India, as compared with eleven twelfths of the previous year, amounted to 2,428,233*l.*

Education.

It has been proposed by the Trustees of the Gilchrist Educational Trust to establish two annual scholarships of 100*l.* a year each, to be held by the Natives of India at the Universities of London and Edinburgh. The Government of India suggested a substitution of one scholarship of 200*l.* for two of 100*l.* each, and that the admission of candidates should be extended so that East Indian youths generally should also be eligible, and that such scholarships should be made through open competition by the Authorities of the Presidential Universities in the three Presidencies of India in rotation, and that Latin should be omitted from the prescribed subjects of examination.

The Trustees have so far modified their original intentions as to decide that as regards the question of race, all persons born in India, except those of pure European descent, may be permitted to compete; but that they adhere to their decision that two scholarships shall be competed for of 100*l.* each per annum, to be continued for five years; that the award of such scholarships must be by open competition, by examiners under direction of the Trustees; and that they decline to relinquish Latin as one of its subjects. The Trustees have also agreed to waive the requirement of graduation in favour of such candidates as are preparing for the Civil Service Examinations.

The Secretary of State for India, with a view to encourage the proposed scheme, has sanctioned the grant of 100*l.* for passage to each scholar proceeding to

to England, with a continuance of this privilege to such as may forfeit their scholarship.

The first examination has been announced for January 1869.

	Number of Institutions.		Number of Students.	
	1865–66.	1866–67.	1865–66.	1866–67.
Government colleges and schools	295	305	23,356	22,894
Private schools, &c. receiving aid	2,266	2,602	90,492	98,286
Private schools, &c. receiving no aid	197	425	7,433	13,460
Total	2,758	3,332	121,281	134,640

Bengal

The total number of Colleges and Schools under inspection of the Education Department, as given in the margin, shows an increase of 574 institutions throughout the Bengal Presidency, with a corresponding increase in the number of students of 13,359. Sixty-four additional female schools have been opened during the last year, giving instruction to 6,541 pupils, as compared with 5,569 in the previous year. The principle of fee payments has been adopted in many of these schools, showing, without doubt, the demand for means of instruction. The quality of the instruction given is, however, capable of improvement.

Expenditure.	1865–66.	1866–67.
	£	£
From Imperial funds	138,048	138,576
„ Local funds	89,654	90,493
Total	227,702	229,069

The total expenditure of the Department was estimated as shown in the margin. The amount contributed from local sources shows an increase of 839*l.* over twelve months of the previous year. The charges incurred on purely private institutions which have accepted the inspection of the Department, but receiving no pecuniary aid from Government, were not taken into account. Assuming the net charge upon public revenue to be 138,576*l.*, and the number of students at 121,180, excluding private schools receiving no aid, the cost to Government of each student's education was about 1*l.* 2*s.* 10*d.* In 1865–66 it was 1*l.* 4*s.* 3*d.*

The receipts from school fees were in 1862–63, 29,453*l.*; in 1863–64, 34,857*l.*; in 1864–65, 44,423*l.*; in 1865–66, 51,324*l.*; and in eleven months of 1866–67, 49,671*l.*; showing a gradual increase from year to year. Of the 49,671*l.*, 27,162*l.* were received by Government institutions, and 22,509*l.* by aided institutions.

1864–65.	1865–66.	1866–67.
—	—	—
1,396	1,500	1,350

The number of candidates for entrance to the University examinations showed a falling off, the reduction being attributable to the new rule by which admission to examination was made dependent on the opinion of the teacher as to the probability of the candidates passing; this check having been imposed in consequence of a large proportion of failures in previous years. The successful candidates were principally from Government institutions.

A scheme for the establishment of Night Schools for the further encouragement of Female Education was under the consideration of the Government of India. It was proposed to open 100 schools at the outset, and, if the scheme be successful, to extend the number to 500, at an average cost of 3*l.* 10*s.* for each school, the object being to impart elementary education to those of the people as may be unable to attend in the day time.

A proposition for a local compulsory education rate, having for its object the providing a special cess for maintenance of local schools, though admitted to be sound in principle, did not meet with the sanction of Government.

	Number of Institutions.		Number of Students.	
	1865–66.	1866–67.	1865–66.	1866–67.
Government colleges and schools	3,877	3,966	125,626	134,208
Private colleges and schools under inspection	5,322	5,313	73,022	76,494
Total	9,199	9,279	198,648	210,702

North-west Provinces.

In the North-west Provinces the number of Colleges and Schools under Government increased by 80, with 12,054 additional pupils. Female education has made satisfactory progress, though there has been a falling off in some districts, the cause for which has not been explained. In Ajmere and Kumaon, where the education of females was most backward, something has been done during the year by the establishment of a class of widows who will, after a little training, become mistresses of girls' schools lately sanctioned

for the districts of Ajmere and Gurwhal. The Female Normal Schools were working well, though the same cannot be said of the other class of Normal Schools, as there appeared to be a difficulty in getting the schoolmasters, who are mostly married men, to leave their homes to attend to their duties; hence the progress has not been so great as might have been desired.

Of the number of Natives employed for the first time by Government in 1866, 66 per cent. were educated at Government or aided schools.

	1865–66.	1866–67.
Number of schools - -	122	184
Number of students of English - - -	9,757	13,355

A very marked sign of the general progress of the people is observable in the increase in the number of students desirous of learning the English language, being nearly 3,600. This increase has, no doubt, been stimulated by the prospect of obtaining Government employment in the army, the railways, and at the bar.

The hope of creating greater interest in the schools generally has dawned in the establishment of District or Local Educational Committees, composed of influential members of the community, official and non-official, formed for the purpose of co-operating generally in the promotion of Education, under control of the Director of Public Instruction.

Expenditure	1865–66.	1866–67.
	£	£
From Imperial funds -	78,469	77,400
„ Local funds - -	40,761	45,729
Total -	119,230	123,129

The expenditure in this Department for the past year amounted to 123,129*l.*, and, taking the number of pupils at 210,702, as shown in previous page, the cost per head was 11*s.* 8*d.*, as compared with 12*s.* in 1865–66.

Central Provinces.

	1865–66.	1866–67.
Number of schools of all classes - - -	1,441	1,570
Number of scholars - -	46,738	58,137
Expenditure :—	£	£
From Imperial funds -	13,546	15,646
„ Local funds - -	20,230	23,427
Total -	33,776	39,073

Similar progress appeared to have taken place in the Central Provinces, where the number of schools has increased 8 per cent, and the scholars 19 per cent. The cost of each pupil's education was 13*s.* 5*d.*, as compared with 13*s.* 11*d.* in the preceding year. An active desire has shown itself in these Provinces for English education, chiefly confined to the Mahratta districts, the number of pupils having increased from 1,526 to 1,970.

	1865–66.	1866–67.
Number of Female Schools	90	130
„ pupils - -	2,361	3,621

The number of Females Schools continued to increase. Some of these Schools at towns or cities, where native gentlemen have become patrons, were making excellent progress. The teaching consists not only of reading, writing, and cyphering, but the more practical accomplishments of sewing and knitting.

Towards the close of the year, Government sanctioned a scheme for granting scholarships to be competed for at examinations, and to be tenable for two years at a Government or aided school of a higher class.

The receipts from school fees increased from 988*l.* in 1865–66 to 1,394*l.* in 1866–67. The highest monthly fee paid was 1*s.*, and in the majority of schools no fees above three halfpence a month have been exacted.

British Burmah.

	1865–66.	1866–67.
Number of schools - -	299	271
„ scholars -	6,747	7,080
Expenditure - -	£5,334	£4,748

The advance of Education in these Provinces was considered satisfactory, owing mainly to the exertions of Missionary bodies. A Director of Public Instruction has been appointed. There were several schools in large towns and villages, which have not been included in the figures for 1866–67, shown in the margin. The cost of education is about 13*s.* 5*d.* per head.

The

	1865–66.	1866–67.
Number of schools - -	1261	1386
„ pupils - -	45,056	51,118
Expenditure:—	£	£
From Imperial funds -	62,067	61,607
„ Local funds - -	9,571	11,609
Total -	71,638	73,216

Madras.

The number of Colleges and Schools for the same period in the Madras Presidency has increased by 125; and the number of scholars by 6,062. This addition was entirely in private schools, and marks the extension of the grant-in-aid system. The aggregate expenditure for 1865–66 does not include a sum, amounting to about 30,000*l.*, incurred from other sources than the Government grants, by the managers of private schools under Government inspection.

In 1865–66 the number of candidates examined for the matriculation examination was 555, and in the year under report 895, showing an increase of 340. This increase is attributable in a great measure to the fact of the original minimum of one fourth of the total marks obtainable in the English language being reduced to one third. The number of successful candidates was in 306, as against 229 in the previous year; of these 142 were from Government, and 164 from private Institutions.

Bombay.

The results of the Educational Department in the Bombay Presidency will be seen in the accompanying table. The number of institutions for instruction has increased by 357; and the number of pupils on the rolls, and the daily average of attendance, exceeded that of the previous year by 23,545 and 20,138 respectively. While there was an increased expenditure of 4,661*l.* from the Imperial funds, there was a decrease from Local sources amounting to 24,260*l.* The gross expenditure showed a decrease of 19,599*l.* The cost of educating each pupil was 1*l.* 5*s.* 10*d.*, as compared with 1*l.* 16*s.* 5*d.* during the previous year. The increase in Imperial expenditure is due mainly to an extension of grants-in-aid to private schools and buildings; and the decrease from Local sources was more apparent than actual, being due to the exclusion of private expenditure of about 20,000*l.* from the head of Local Funds, which appeared under this head in the previous year. The sum realized from school fees throughout the Presidency was 14,341*l.*, being 943*l.* in excess of the preceding year. The Inspectors of Education write very encouragingly of the Local Educational Cess, which continued to make great progress and gained popularity, so much so that numerous petitions were received from the people, for schools and school houses, indicating a desire to reap the full benefit of the money contributed by them, and the school attendance of the agricultural classes showed a corresponding increase, besides, the effect of this cess was to set a good example to Inamdars, Jagheerdars, and people of non-government villages, in creating a wish for a similar cess being levied for them.

	1865–66.	1866–67.
Number of colleges and schools - -	1,397	1,754
Number of pupils on the rolls - - -	94,002	117,547
Average daily attendance -	69,756	89,894
Expenditure:—	£	£
From Imperial funds -	87,007	91,668
From Local funds - -	84,423	60,163
Total -	171,430	151,831

The grant-in-aid system, on the principle of payment for results, has been considerably extended in this Presidency, and its success is spoken of in favourable terms, as tending to stimulate the managers of private schools to fresh exertion in the improvement of their pupils, and to the constant raising and keeping up of the schools; it will prevent the attention of teachers being concentrated on the best pupils to the neglect of others; it is, moreover, a liberal and yet an economical system, for no grant is made except for actual progress. There is no doubt that the system will obtain a further extension, and be productive of great good in the future.

Of female schools there were 61 Government institutions, with an average daily attendance of 1,234 scholars, and 29 private schools, with an average attendance of 1,403, of which 12 schools only received aid from Government. The amount of Imperial funds expended on female education during the past year amounted only to 34*l.*, while 421*l.* was received from Local sources, in support of the 61 Government female schools. Of the private schools 310*l.* was paid under grants-in-aid rules, on the system of payment for results. In the Northern Division of the Bombay Presidency, the female schools are almost entirely supported by private endowments, though managed by the Department of Public Instruction. In Sind there does not appear to have been any attempt at intro-

ducing female education. With the view of extending education of a primary character among the Mahrattee, Gujerattee, and Canarese Districts, for the benefit of girls up to 10 and 12 years of age, the Government of India has sanctioned an annual sum of 3,000*l.* on a requisition from the Government of Bombay.

Punjab.

		1865–66.	1866–67.
Number of institutions		2,978	2,845
Number of scholars on the rolls at the close of the year		102,418	102,388
Average daily number of pupils		84,136	86,608
		£	£
Expenditure.	From Imperial revenue	48,407	56,265
	From Educational Cess Fund	23,149	25,081
	From fees, &c.	15,120	13,560
Total		£86,676	£94,906

In the Punjab the number of Educational Institutions had decreased; the number of village schools, and of Government and aided female schools, having fallen off since 1865–66. On the other hand, several new town schools have been opened, and the number of grant-in-aid schools of the superior and middle grades have increased. The aggregate number of scholars showed also a slight decrease, but their average daily attendance was much larger than in the previous year. The total expenditure in this Province exceeded that of last year by 8,230*l.*, and the cost of each pupil's education rose from 1*l.* 0*s.* 7*d.* to 1*l.* 1*s.* 11*d.* The decrease in the amount received from school fees, subscriptions from municipal and local funds, &c. was but nominal in consequence of the absence of certain returns.

The results of University examinations show that out of 17 candidates for the first Arts examination, only four passed, three of whom belonged to the Delhi and one to the Lahore College; and that out of 81 candidates for the entrance examination, 22 passed, of whom four belonged to private and 18 to Government institutions. Great difficulty was experienced in inducing students to complete the curriculum of college and university education, from the facility with which they obtained well-paid appointments on the slightest pretence to education. The value of a college scholarship is less than the pay received by an ordinary copyist, or under-clerk in a Government or mercantile office; and the demand for such clerks was large; hence, the number of candidates for the higher University examinations continued small.

A new rate of fees has been adopted for the Government Zillah schools, which came into effect at the close of the year under review; and a fresh arrangement had also been introduced into the Dera Ghazi Khan district, which will lead to the improvement and extension of the middle-class and inferior schools.

Hyderabad assigned districts.

	1865–66.	1866–67.
Number of schools	35	147
Do. pupils	1,881	6,644
	£	£
Expenditure	3,444	8,424

At the commencement of the year a Director of Public Instruction was appointed for the Hyderabad assigned districts, which led to an extraordinary spurt in Education. The increase in the number of pupils was equal to 253·20 per cent. The average cost of each pupil's education was 1*l.* 5*s.* 4*d.* per annum. Though this may appear high as compared with other Provinces, it should be borne in mind that these districts were but ill supplied with the necessary appliances and machinery; hence the expenses for the year included the most simple requisites for the schools as an outfit to the undertaking.

Two High Schools have been formed, both capable of imparting an education that will enable a pupil to pass his matriculation examination at the Universities of Bombay and Poona. Graduated scholarships in the Town Schools have also been instituted. Three new school-houses have been opened during the year, the want of which was felt as a great impediment to the advancement of Education in towns.

Sanitary.

The adoption of Mr. Moule's system of dry-earth sewage has been reported to be the greatest public benefit conferred by a private individual in a matter so essential to public health. This system has been introduced throughout India at all hospitals, jails, and other public buildings, and although in its infancy, it has already worked wonders towards the improvement of conservancy arrangements

ments from what they were formerly. It does not appear to have been authoritatively adopted in the army, though it has been tried in some of the latrines of European regiments. There is no doubt, however, that its use will become more general, considering the unanimous expression of approval pronounced upon it.

A pecuniary reward of 500*l.* has been granted to the Rev. Mr. Moule by the Government of India, and sanctioned by the Secretary of State in Council.

	1865.	1866.
Total number treated - -	269,920	304,702

Bengal.

The total number of patients treated in the charitable hospitals and dispensaries in the Bengal Presidency amounted to 304,702 against 269,920 in 1865. The per-centage of mortality to total treated among the indoor patients was 29·42.

	1865.	1856.
Medical College Hospital -	34,551	42,076
Calcutta Native do. -	165,346	176,381
Branch Dispensaries to same - - -	237,327	270,133
Calcutta Pauper and Police Hospital - -	4,207	6,141

The accompanying table shows the number of patients treated, indoor and outdoor, during the past two years, in the principal hospitals and dispensaries in Calcutta. The number of deaths among the indoor patients of the Medical College Hospital amounted to 1,308, against 1,119 in 1865. The per-centage of deaths among Christian patients was 10·73 against 9·04, and among Native patients 30·86 against 29·90, in the preceding year. The number of deaths among the indoor patients of the Calcutta Native Hospital was 283 in 1865 and 430 in 1866, or a per-centage of 24·06 against 21·02. The proportion of deaths among patients treated in the Calcutta Pauper and Police Hospitals was less than in the preceding year, the numbers being 1,465 and 1,444 respectively. The cost and control of the Pauper and Police Hospitals have been handed over to the justices of the town, as mentioned elsewhere, under a Bill introduced into the Council of the Lieutenant Governor of Bengal. Great inconvenience having been felt from the locality of these hospitals, a different arrangement has been adopted, by which the sick poor were permanently accommodated in the building originally intended for the Sealdah Market, and the Amherst Street Hospital made available for the sick police, while the building at Entally was to be occupied by cases of cholera and other infectious diseases.

	1865.	1866.
Total number vaccinated -	152,099	194,753
Successful cases - -	121,618	164,529

The increase in the number of vaccinations was 42,654, of which 34,294 were entirely due to increased activity in Calcutta and its suburbs. In June 1866 a notification was issued, prohibiting inoculation in certain towns and places in the country. And a new scheme for extending vaccine operations has been submitted for the consideration of Government, its principale feature being to increase the number of operators from 20 to 60 in Calcutta, and 76 to 151 in the country districts.

The operations in the Darjeeling vaccine circle, which came into full work during the past year, show very favorably towards overcoming the prejudices of the people. Out of 12,125 persons vaccinated, 9,988 cases proved successful. The cost of each successful case was a very little over one shilling.

The attention of the Government having been called to the prevalence of small pox during the year in Chota Nagpore, Beerbhoom, Midnapore, and Pooree, it was proposed to establish a new vaccine superintendency, with head quarters at Ranchee, with the view of affording the necessary protection from this epidemic.

Much difficulty having been experienced in obtaining the required number of Native doctors for employment in jails, and in meeting the demands of the public service generally, the Government of India granted certain concessions, in anticipation of the general question of revision of salaries, by which the condition and prospects of Native doctors would be greatly improved.

The Government of India has also approved of a scheme for the construction of a small pox hospital in the suburbs of Calcutta. The building and repairs of which were to be executed at the public expense.

North-west Provinces.

Considerable progress has been made in the cities and large towns of the North-west Provinces, where the municipal acts are in force, especially in those

those in which the introduction of the octroi or other municipal taxation, instead of the unpopular chowkeedaree tax, has given a sufficient amount of surplus funds. Latrines on an improved plan have been built, the dry-earth system of conservancy has been adopted, old and narrow streets have been drained, paved, widened, and lighted, and the people generally appear to appreciate the advantages they are now deriving from improved sanitation.

The appointment of a special sanitary officer for these provinces has been strongly urged upon the Government of India.

	1865–66.	1866–67.
Total number vaccinated -	166,583	203,916
Successful cases - -	125,072	161,711

The vaccine operations of the past year contrast very favourably, there having been an increase in the number of persons vaccinated of 37,333, and in the number of successful cases of 36,639. The cost per head of each successful case in these provinces was $8\frac{1}{2}d.$

An experiment is being tried, the result of which is anxiously looked for, during the present year, of enlisting, in the cause of vaccination, the services of Native practitioners, who are to receive a maintenance allowance during time of tuition, and when taught are to be supplied with the necessary implements, &c., and to be allowed to practise, charging suitable fees; they will receive a certificate of fitness, and be under the supervision of the vaccine department of the district.

	Number treated.
1865–66	513,169
1866–67	534,440

Six additional dispensaries have been established. The number of patients treated exceeded those in 1865–66 by 21,271. The average cost of treatment per patient was about 6*d.* a head.

The system in force of regulating the Government donation by the amount of private subscriptions received has been found to work well. Dispensary committees now take more interest in the management, and are consequently more active in adding to the sums subscribed, since they find they can spend the surplus annual increase in the manner they may find most beneficial to the interests of the institutions under their charge.

The mortality during the past year amounted to 330,076, which was composed of 193,144 males and 136,932 females. By far the largest proportion of both sexes dying occurred under ten years of age and between the ages of 40 and 60. The per-centage of total death to population was 1·11 per cent.

Central Provinces.

Conservancy and water supply arrangements have done much to mitigate disease in cities and towns of the Central Provinces. Many of these towns can now, in respect of conservancy and rate of mortality, vie with the best cities in Northern India. Great efforts have been made towards the inculcation and the observance of sanitary rules in country towns and villages. Wherever there was a resident magistrate, there sanitation was enforced under the authority of Act V. of 1861. In the large towns and cities it was regulated by byelaws, framed under Municipal Acts XVIII. of 1864 and XV. of 1867, and in the military cantonments under Act XXII. of 1864.

Considerable improvement was consequently visible in the health of the people, from the benefits of certain measures carried out under municipal improvements.

To combat disease in these provinces there were 56 medical institutions in full working order. And in order to meet the difficulty which existed in securing trained doctors, a scheme was under the consideration of the Government of India for opening a medical school at Nagpore for the training of men of the country to the profession of medicine. The number of patients treated at all the dispensaries, showed an increase of 34,986 over all districts, and the average cost per case treated was $11\frac{1}{2}d.$

	1865.	1866.
Number of patients treated	103,983	138,969

The operations of the Vaccine Department in Nagpore and Chindwarra districts contrast also very favourably with the previous year. In 1865–66 the proportion of successful cases was $55\frac{1}{2}$ per cent., and in 1866–67 it was $87\frac{1}{2}$ per cent.

	1865–66.	1866–67.
Total number vaccinated -	4,767	22,367
Successful cases - -	2,666	19,584

This extraordinary increase in the number of persons vaccinated, among those who have hitherto shown great reluctance in having their children thus operated on, was mainly

mainly owing to the efforts on the part of the superintendent to overcome the prejudice of the people, and to the fact of the small-pox, which attacked some small towns, soon becoming an epidemic during the past year. It was at this time that the superintendent stepped in, and vaccinated all children who were found unprotected. In not one case was a child thus operated on attacked by the disease. The news of this immunity spread rapidly, and the inhabitants of towns and villages became at once anxious that their children should not be forgotten.

The general death rate amounted to 25·09 per 1,000 among the urban, and 12·76 among the rural population.

British Burmah.

The state of public health in the towns of British Burmah may be stated to have been generally satisfactory, with the exception of Sandoway, where the cholera broke out and carried off many people. Dysentery and fever also appeared to have caused mortality at Rangoon; there were only 45 deaths from small-pox. At Bassein the death-rate was 55 per 1,000; this high rate was attributed to a want of proper sanitary arrangements. Public works of improvement were, however, being carried out, from which a favourable effect might be expected; but the great difficulty appeared to exist in the want of means, and the reluctance of the people in coming forward to carry out local improvements.

The total number of births, as far as could be ascertained, was 7,892 in 1865 and 7,977 in 1866, thus showing a small increase; while the deaths fell from 7,685 to 6,776 in 1866.

	1865–66.	1866–67.
Total number vaccinated -	7,413	7,870
Successful cases - -	5,849	6,171

The progress made in vaccine operations continued slow, in consequence of the Burmese being strongly prejudiced in favour of inoculation, the Native inoculators doing all in their power to induce the people not to have their children vaccinated.

Number treated.	1865–66.	1866–67.
In-patients - -	2,985	2,724
Out-patients - -	19,804	18,236
Total - -	22,789	20,960

The medical institutions were 13 in number, at which 20,960 persons were treated, against 22,789 in the previous year. The working of these dispensaries has been satisfactory. There was an increase in the amount of private subscriptions, thus showing that the benefits conferred were becoming more appreciated by the people.

Madras.

The health of the civil population during the past year has been decidedly unsatisfactory; cholera, small-pox, and epidemic fever have been prevalent in most of the districts of the Madras Presidency. Famine has also contributed to the mortality of the year, no doubt causing much of the epidemic disease witnessed.

The number of deaths, therefore, was unusually great, having been 14,636, which was in excess of the average of the previous ten years by 3,142. The greatest number was reported to have occurred during the months of July, August, and September.

	1865–66.	1866–67.
In-patients - -	23,154	16,574
Out-patients - -	254,953	223,740
Total - -	278,107	240,314

The civil dispensaries continued to afford valuable aid to the destitute poor of the presidency town and at up-country stations.

With few exceptions, these dispensaries were all self-supporting; but, owing to the limited funds at the disposal of the local committees, great care had to be taken in the selection of cases. The only possible explanation offered for the apparent decrease in the number of patients treated was, that the outlying population, not actually residing in the towns where the dispensaries were situated, were prostrated with fever, and from their extreme poverty were unable to resort to the dispensaries at which they had formerly applied for relief.

Notwithstanding the difficulties consequent on the unhealthiness of the year under review, the results of the vaccine operations showed an increase. The average proportion of successful cases throughout the presidency was 86·38 per cent. Great interest has been evinced by the various officers of Government and by numerous independent

	1865.	1866.
Number vaccinated -	191,394	194,509
Successful cases - -	159,755	168,057

gentlemen in the promotion of vaccination, towards making known generally the effects and method of the operation. The number of vaccinators employed by zemindars, municipal associations, and private individuals was steadily increasing.

Bombay.

Pending the erection of a new European General Hospital, considerable alterations and improvements have been effected in the building now in use, by the conversion of certain old barracks into wards for patients. Gas and water have also been laid on. A new hospital has been erected at Karwar, for the police; and a new civil hospital at Kaira has been sanctioned.

Twelve new dispensaries have been opened, two of which were established by the Telegraph Department on the Meckran coast.

	Number treated.
1865-66 -	284,468
1866-67 -	305,170

The total number of persons treated during the past year at the hospitals and dispensaries was 20,702 in excess of the preceding year.

The proportions of deaths to treated were as under:—

In the European General Hospital - -	7·26
„ Jamsetjee Jeejeebhoy „ - - -	20·05
„ Civil Hospitals - - - -	3·85
„ Police „ - - - -	1·12
„ Jail „ - - - - -	3·59

The Department of Public Heath was in full operation during the past year in the city of Bombay, and the work of cleansing the town, and making arrangements for the prevention of the spread of any infection, has not been without benefit to the health and comfort of the people. The rate of mortality fell from 30·62 in 1864, and 35·4 in 1865 (during which the cholera was prevalent), to 20·50 in 1866.

	1865–66.	1866–67.
Total number vaccinated -	357,247	372,394

The number of persons vaccinated exceeded that of the previous year by 15,147. The per-centage of successful operations to number vaccinated was 92·89.

Punjab.

In the Punjab the number of dispensaries increased from 55 to 69 in 1866, and the patients treated from 342,277 to 377,754, the increase being most noticeable in the number of female patients. Owing to the unusual healthiness of the year the number of indoor patients decreased.

In consequence of the great success which attended the establishment of rural dispensaries in the Sealkote district, the entire expenditure of which was met by a tax of about 2*d.* on each house in the village, a similar system has been introduced into other districts of this province; and 29 youths, sons of Native practitioners, were being educated, at the expense of local funds and by private subscriptions, with a view to their future employment as Native doctors.

	1865.	1866.
Total cases - -	230,607	248,094
Successful cases - -	196,400	212,979

The results of vaccine operations were satisfactory. Opposition to vaccination, though occasionally met with, was steadily on the decrease. In some places the vaccinators have been hailed with pleasure. The endeavours made, however, to persuade Native physicians to practise on their own account have not been encouraging, except at Amritsur, where very satisfactory results had been obtained. Of the 1651 operations performed by them 93·15 per cent. were successful.

The total number of deaths in the Punjab amounted to 200,691 in 1866, the per-centage to population being 1·32 as compared with 1·71 per cent. in 1865.

Hyderabad assigned districts.

In the Hyderabad assigned districts the past year has been providentially marked by an entire absence of cholera, which had previously appeared to have become endemic. The general health has also been certainly better than in former years. Much yet remains to be done in the way of sanitation, especially in the more rural villages. The conservancy establishments kept up in the large towns and under the eye of the Tehsildars have really done some good, and they have certainly much improved the exterior of the streets.

District officers have been instructed to employ the agency of the village headmen, accountants, and watchmen freely in insisting upon ordinary precautions being taken against the spread of infection and disease.

Municipal.

Several city improvements were effected in the course of the past year by the extension and widening of certain streets in Calcutta, and by the construction of slaughter-houses, which were expected to be completed towards the close of 1867.

Arrangements had also been made towards raising the funds required for the execution of the drainage and water supply works of Calcutta, by opening a loan for 100,000*l.* on the security of the rates and taxes, under certain restrictions. Of this amount, 86,000*l.* had been actually raised within the year.

The amount required to be raised for the water supply works was 520,000*l.* As the corporation of Calcutta were unable to obtain this sum without a guarantee, the Government of Bengal decided on borrowing the money themselves, and lending it to the corporation, in three yearly instalments, carrying interest at 6 per cent. Out of this rate, 4 per cent., with 1 per cent. from the Imperial funds, will be set aside to pay the interest on the loan raised, and 2 per cent. will be invested as a sinking fund for the redemption of the principal amount.

At the request of the municipality of Howrah, the powers conferred on the Oriental Gas Company by Act V. of 1857 have been extended to that station.

A revised Municipal Act for Madras, to supersede Act IX. of 1865, had been submitted during the past year for the sanction of the Governor General in Council, by which the municipality might be enabled to raise loans for the execution of important public works of drainage and water supply; the municipal corporation be enlarged; and extended powers be granted to the president of the commission, in order to secure more efficient administration.

Considerable progress has been made in Bombay towards lighting the town with gas. On the 31st December 1865 there were but 220 lights, and on the same date in 1866 the number had increased to 1888, exclusive of ornamental lamps. During the past year eight Native gentlemen presented the municipality with large ornamental lamps for central positions on public roads.

A steam fire brigade, founded upon the model of the London Fire Brigade, has been established at Bombay, and had already done excellent service on several occasions.

Ecclesiastical.

During the year 1866–67 two new churches have been erected at Chindwarra and Khundwa, in Nimar; and that at Hoshungabad was very near completion. Sufficient funds have been collected for a new church at Chanda, and for transforming an existing building at Nursingpore into a place of worship.

A new church, raised entirely by voluntary contributions, has been completed at Chudderghat in Secunderabad, and a church at Berhampore is now nearly finished. A similar building was also under construction at Tellicherry, to be erected from funds bequeathed for that purpose by Mr. Brennen in 1860. At the close of the year under review there were 168 clergymen in the diocese, of which 52 were Native clergymen.

Two additional churches have been constructed in the Bombay Presidency, one at Egutpoora and another at Poona. The former was built partially, and the latter entirely, at Government expense.

A Church of England Mission has been sanctioned for the penal settlement of Port Blair in the Andaman Isles.

Two new churches (at Purneah and Gya) have been completed, and those at Cachar, Arrah, and Moteeharee were very nearly so.

The monumental church at Ferozepore has been improved by the addition of a tower and spire, and the Roman Catholic chapel at Meean Meer has been reroofed and enlarged. The church at Attock was progressing towards completion.

Postal.

On the 19th November 1867 negotiations were brought to a conclusion, and a contract entered into with the Peninsular and Oriental Steam Navigation Company, for the conveyance of the mails to India, China, and Japan. By this contract the Company are to find adequate vessels, with appropriate steam power, and properly equipped and manned by competent officers, including a surgeon,

on board each vessel. The speed of the vessels employed is to be at the rate of ten knots per hour on the western route between England and Alexandria, and not less than nine and a half knots on the routes east of Suez. Each vessel to sail at such days of the week and at such hours as may be directed by the Postmaster General.

The subsidy to be paid by Her Majesty's Government for the performance of such service is to be 400,000*l.* a year, in equal quarterly payments, with certain provisions. Passengers will be conveyed by these vessels, the priority of accommodation being accorded to Civil, Naval, or Military Officers under Government. The rates being similar in each class.

This contract commenced on the 1st day of February 1868, and will continue in force for 12 years.

There is now a weekly service between Southampton and Alexandria, calling at Gibraltar and Malta; between Marseilles and Alexandria viâ Messina; between Suez and Bombay, calling at Aden; and once in every two weeks a mail will be conveyed between Suez and Calcutta, calling at Aden, Point de Galle, and Madras; also between Bombay and Hong Kong, calling at Point de Galle and Singapore; between Hong Kong and Shanghai, and between Shanghai and Yokohama, calling at Nagasaki. The return voyages will in each case be the same, but reversing the order of stoppages.

The postage of the correspondence of Officers of the Army in India has been reduced from the 1st of January of the present year to sixpence the half ounce, under instructions issued by the Commissioners of Her Majesty's Treasury.

A proposal has been submitted to transmit the correspondence of China and India with the United States by a line of packets recently established between San Francisco, Yokohama, and Hong Kong. As the arrangement may be considered advantageous to the public, it is hoped the Government of India will agree to it.

Emigration.

Bengal.

	1865–66.	1866–67.
Mauritius - - -	15,115	478
British Guiana - -	2,842	4,509
West Indies - -	2,006	5,188
Total - -	19,963	10,175

In last year's Report mention was made of a very large increase in the number of Emigrants from Bengal, as compared with 1864–65, and that the increase was entirely amongst those who were despatched to the Mauritius; but in 1866–67 there was a corresponding diminution in the number despatched when compared with the previous year. This decrease was among those shipped to the Mauritius, and was attributed to the high price of grain imported for the consumption of labourers at that Colony, also to the depressed state of agricultural prospects of the Island, arising from a severe drought to which it had been subject. In fact, Emigration to Mauritius on account of Government had been suspended for a time. A number of old Emigrants, however, had returned to Mauritius at their own expense; a fact which speaks for itself as to the condition and prospects of laborers in that Colony.

The proportion of female to male Emigrants still continued excessive, which is assignable to the same cause as mentioned in last year's Report, viz., the scarcity of food in the recruiting districts.

1864–65.	1865–66.	1866–67.
2,882	3,747	2,325

The total number of Emigrants returned from Mauritius and other places is shown annexed for the last three years. The mortality among those sent to Mauritius was 0·62 per cent., and 1·02 per cent. on those returning from the same Colony, and from Réunion 0·71 per cent.

In order to obviate a recurrence of the excessive mortality which prevailed among Emigrants despatched to British Guiana in 1864–65, which was also alluded to in last year's Report, and while the suggestions of the Sanitary Commission are being considered by Government in connexion with the amendment of Act XIII. of 1864, a rule had been laid down, under recommendation of this Commission, that, weather permitting, one third of the number on board shall always be on deck under awnings, and that the Director of Emigrants was to see that their clothes were carefully disinfected prior to embarkation.

A proposition was submitted to the Government of India for a more simple means of remitting the savings of Coolies to India, similar to the method already adopted

adopted at Mauritius, viz., by the grant of money orders payable in Calcutta, and the Government to provide their further transmission to the interior of India; the Colonial and Danish Governments agreeing to bear all risks of adverse exchanges.

This arrangement has been authorized by the Secretary of State in communication with the Colonial Office. Steps have been also taken to ensure an accurate registration of Emigrants, with the view of securing identification and the discovery of heirs in case of death.

The number of Coolies sent to the Tea districts of Assam, Cachar, and Sylhet was 12,487, against 44,582 sent in 1865-66; of which nearly 56 per cent. were females. The mortality was 252, or about 2 per cent. against 4·66 per cent. in the previous year. The demand for labour was limited during the months from June to December, but increased considerably during the three closing months of the year under review, attaining an average of the three preceding years.

With reference to the Cherrajoolie flogging case mentioned in last year's Report, besides the appointment of an Assistant Commissioner as a protection of labourers in Assam, Government sanctioned the establishment of a number of new subdivisions, with head quarters in the vicinity of tea plantations, with the view of increasing the Civil Administration of that part of the country.

Madras.

A corresponding decrease in Emigration appears to have taken place from Madras, the number being 2,141, against 5,192 in 1865-66. In the five ships which left for Mauritius, carrying 1,853 persons, only 4 deaths occurred. This decrease was not owing to any paucity of applicants, but to the causes already assigned. The unfavourable nature of past seasons and scarcity of money, therefore, precluded the British colonists from sending for extraneous labour, and the stream of Emigration was directed therefore to the French Colonies.

Notwithstanding the dearness of food and the prevalence of sickness in Black Town, the mortality at the depôts was less than might have been expected; 21 cases occurred at the Mauritius depôt, chiefly among Emigrants from the interior; there were no deaths in the Natal depôt.

On a question arising in 1866 as to the allotted space for Emigrants in depôt, it has been decided that each Emigrant should be allowed 24 square feet, with a height of 12 feet.

The number of returned Emigrants from Mauritius was 495. No serious mortality occurred, except on board one ship, on which 15 deaths took place among 151 passengers. From an inquiry instituted, it was ascertained that the greater number were invalids and aged persons.

1864-65.	1865-66.	1866-67.
2,351	2,155	10,200

No vessels left Madras for the French Colonies; but while Emigration from the English ports for the British Colonies ceased, there was a large increase in the numbers from French ports. Of those embarked, 6,097 went from Pondicherry, 2,819 from Karikal, and 1,284 from Yanam; 2,477 were bound for Réunion, 3,889 for Guadaloupe, 2,595 for Martinique, and 1,239 for Cayenne.

The proportion of women to men despatched to the French colonies was 31 per cent.

Geological Survey.

Bengal and Central Provinces.

In Bengal and Behar the systematic examination of the Coalfields has been steadily carried on. The fields lying to the south of Hazareebaugh and near Ramghur have been thoroughly revised, completed, and mapped as correctly as the defective nature of the Topographical maps admitted of.

The Bokaroh coal-field covers an area of about 220 square miles, but is not rich in valuable beds of coal, though several are of considerable thickness, and of fair quality. From the northern and western ends, a considerable amount of coal had been carted away during the last two years, for burning lime, bricks, &c. for the extensive buildings now in progress at Hazareebaugh, and at Gya the coal was raised in the rudest way from mere open quarries without any mechanical appliances. The Ramghur coal-field is much more limited in extent, and though not rich in coal, nor of the best quality, there exist many points of high interest to the geologist.

A large area near Nagpore having been represented as covered by coal-bearing rocks, preparations were consequently made for carrying on the Survey between Hazareebaugh and Raneegunge in the north, and Mumerkuntuk and

Sumbulpore in the south, a district hitherto unknown as to its geological structure. This preliminary reconnaissance will prove most important and valuable when the more detailed investigations of the Survey can be extended into these regions.

The Karunpoora or Hoharoo coal-field had been carefully examined. Its extent is not less than 500 square miles, but unfortunately very little coal exists, and none worth working, in the upper group of the Damudah series. The smelting of iron ore was carried on extensively, and there were nearly 200 furnaces at work.

The South Karunpoora field is found to be of larger extent than at first supposed. Its western boundary near Patal almost touches the Karunpoora field mentioned in previous paragraph. Igneous intrusions in this part of the Damudah valley are less than in the Bokaroh or Jherria fields to the East. Limestone occurs in subcrystalline rocks further south. The Jherria coal-field had been estimated to cover an area of about 200 square miles, and that it would yield an available supply of about 465 millions of tons of coal.

The Palamow coal-field had been commenced, and a portion carefully examined, but the examination could not be continued from the want of detailed maps of this part. Further progress in the examination of a considerable area in Maubhoom was stopped from a similar cause; operations were then diverted to a district lying west of Purulia. The mapping of a large area in the districts of Dumoh and Saugor had been completed.

Bundelcund. The researches made in the district extending from a little west of the Sone river to beyond Kalinjer fort, tend to show the existence of two distinct series of strata of a general gneissoid character, to the younger of which belong the crystalline rocks west of the Dessaun river which had been doubtfully grouped with the Bijawur series. The limestone of Heerapoor and Sorai had been identified as a part of the same series and similar to the brecciated limestones occurring to the south and west of the great Vindhyan country in the Nerbudda Valley.

Gwalior and Dholpoor. The re-mapping of the neighbourhood of Gwalior had been completed on the larger scale of one mile to the inch. adding a further area of about 350 square miles to the north of lat. 26° 30′ consisting chiefly of Bundari rocks and alluvium. From a reconnaissance made to the south and west in Rajpootana, the geological structure of which country was unknown, a more accurate western limit had been obtained to the continuous trappian area of Malwa, and also to the great Vindhyan group. In places, the boundary of the same rocks with the crystalline rocks beneath them is well defined, but elsewhere, and to the northwards, it becomes intricate when in contact with non-crystalline rocks.

British Burmah. The Survey of the year 1865–66 was confined to the country lying east of the Irrawaddy river, and north of the latitude of Prome. Gravels containing fossil-wood are abundant in the Prome district; some of the silicified trunks are 60 feet long. These gravels are supposed to be identical with the ossiferous beds of Upper Burmah, and contain a considerable quantity of a concretionary argillaceous peroxide of iron, at one time largely smelted in this district; they are nowhere disturbed, though largely denuded.

The rocks of the Eastern Yema range form a distinct group, differing entirely from those known as the Prome group. Fossil wood gravels occur in the Eastern or Toungoo side of this range.

Petroleum has been noticed at Namian, south of Prome. Iron used to be largely smelted, but it is now superseded by the English material. Tin was reported towards the frontier north of Toungoo; the ore occurs in large crystals, and the source was considered to be of some value, but there would be some difficulty in making it, on account of the proximity of the Karen Tribes.

The Cyclone of 1867.

The Lower Provinces of Bengal were again visited with a severe hurricane during the night of the 1st November 1867. The storm originated apparently at some point in the south-east portion of the Bay of Bengal, the centre of which was reported to have passed to the east of Saugor Point and Calcutta, in a north-easterly direction. The greatest violence of the gale was felt at Calcutta between 1.30 and 3.30 a.m. of the 2nd November, and the injury sustained by the town was even greater than that inflicted by the cyclone on 5th October 1864, mainly owing to the occurrence of the disaster during the night.

The

The number of persons killed amounted to 1,116, of which 622 were on the river. 29,394 houses were destroyed; but of these 25,148 were thatched houses. 538 boats have been sunk; besides these, 295 boats were sunk in the canals to the east of Calcutta, of which 182 have been recovered.

The damage done to the shipping was of less severity than in October 1864; this was owing to the hurricane at its worst having swept down instead of up the river, and to the absence of a storm wave, as on the last occasion; thus the ships in port were enabled to ride out the gale, and escape much injury. Several of the vessels belonging to the Government, to the Dockyard, and to the moorings and buoys of the port, were more or less severely injured. Two Government flats had been sunk; a floating light was reported missing.

At the Emigration Depôts all the Coolies were saved, though the buildings were blown down or unroofed. A greater loss of life, however, occurred at the depôts of the Labour Transport Company, 26 Coolies having been killed by the all of the principal shed.

Beyond the city of Calcutta and its suburbs, the effects of the hurricane were most disastrous at Port Canning; here the gale was accompanied by a storm wave five feet high, which passed over the town with fearful violence. The station house, goods sheds, and railway hotel were all blown down, a great portion of the jetty was carried away, and the fresh-water tanks were salted by the storm wave. The number of casualties amounted to 90, and 500 head of cattle were destroyed. Altogether the 24 Pergunnahs suffered more severely than any other district.

In Jessore also the storm was very violent, the casualties did not exceed 100. The demolition of buildings, however, was very extensive, and caused much distress, though borne with much cheerfulness by the people.

In Nuddea the force of the gale was not so violent, and the loss of life comparatively insignificant, but the destruction of cattle was not less than 15 per cent.

Considerable damage was done to boats, houses, and trees in the Dacca division, but no loss of life was reported.

In the Chittagong and Rajshahye Divisions the gale was less severe; there was no loss of life, and the amount of injury done was inconsiderable.

In Burdwan the wind blew with great violence, but no casualties were reported.

In Cuttack Division there was heavy rain and high wind, but no injury to any extent was inflicted.

In the Cossyah and Jynteeah Hills the storm did a great deal of damage among trees of large girth, but no loss of life or destruction of houses was reported.

The damage done to the crops standing has been variously estimated; and notwithstanding the losses felt among the rice, sugar cane, and other crops, there was no fear of any general scarcity in the districts where the storm was most felt, and in some districts there was no necessity for charitable relief.

Nearly 400 tons of salt was reported to have been lost during the hurricane, within the limits of the Soonderbuns.

The measures taken for relieving the distress caused by this hurricane were carried out with promptitude and alacrity. A Relief Committee was at once appointed, and a subscription opened by the Chamber of Commerce in aid of the sufferers, the Government promising to double the amount collected by subscriptions, issued instructions to District Officers to that effect wherever local subscriptions may be raised. The part of the country where relief was most urgently demanded was to the south of Calcutta. In Port Canning great distress was felt for the want of fresh water. 1,500 gallons were taken down by the South-eastern Railway Company in every train; besides which, a steamer was sent with good water and clothing for distribution to the indigent. It is satisfactory to note that the want of food was not generally complained of, and that the grantees or owners of the Soonderbuns Lots had assisted their tenantry speedily, with due regard to their wants and necessities.

In the District of Nuddea the landlords were informed by Government that suspension of revenue would be granted to them on their showing any indulgence to their ryots, and the magistrates were authorized to employ on petty works any of the labouring classes who may be found to be in immediate want. In

Serampore remissions of certain taxes had been made by the municipality in favour of the sufferers. The remissions on account of all outstanding taxes on dwelling huts in the suburbs of Calcutta amounted to 3,000*l.*

Within a month of this disastrous gale the Committee of the Cyclone Relief Fund had expended 9,310*l.*

Weights and Measures.

The question of revising the system of weights and measures in use throughout British India, having engaged the attention of the Supreme Government at various periods since the year 1837, was again revived during the past year.

In May 1863 the Madras Government drew attention to the importance of steps being taken for some reform which might, without disturbing the present nomenclatures to any great extent, bring about a uniformity in the present system of weights and measures in use in India, and assimilate it with the plan now existing in England.

The Calcutta Trades Association also proposed the appointment of a mixed commission, with a view of enquiring into the existing system, and recommended the adjustment of the same to one Imperial Standard, and that the revised system should be enforced by legislation.

Prior to dealing with this important subject, the Government of India resolved to appoint committees of well-selected persons to be held at the chief cities of each Presidency or Province of India, and ordered that the results of their labours should be duly reported to the Local Governments or administrations, for submission to the Supreme Government, with any further remarks which the local authorities might deem necessary.

In approving the decision of the Government of India, Sir Charles Wood, then Secretary of State for India, remarked, in a Despatch, dated January 1865, that it was obvious that great care and circumspection would be required in treating with a question so intimately connected with the interests and habits of the people, and requested to be fully informed upon this subject before any steps were authoritatively taken towards interfering with the present system existing in India.

Finding a great difference in the modes proposed to be adopted by those committees, on the receipt of the replies from the Local Governments and administrations, the Government of India referred the entire question to a central committee, appointed to meet at Calcutta in November 1867, towards obtaining a definite result as to the best method of carrying out so revolutionary a change.

The report of this committee, which was to be prepared within three months, is expected shortly.

In the meantime, however, a deputation from the Metric Committee of the British Association, introduced by the Earl Fortescue, waited on the Secretary of State for India, Sir Stafford Northcote, and pointed out the great inconvenience that might ensue hereafter from any revision of the Indian system of weights and measures, upon the plan proposed by the Government of Madras of assimilation with that now existing in England, while there was every probability of the English system being changed to that of the metric system, now so universally in practice in Europe and elsewhere.

A report of the representation made by this deputation was accordingly forwarded for the consideration of the Government of India, in a despatch, dated 15th February 1868, to be communicated to the central committee sitting at Calcutta, which pointed out, at the same time, that it would be better for the Committee to endeavour to establish a system more nearly approaching the best theoretical model than to adopt the English system, under the circumstances set forth; the Government was also cautioned not unduly to sacrifice practical convenience to theoretical symmetry.

Famine.

Allusion was made in the report for 1865-66 (page 3) to the famine which prevailed in Orissa and other parts of the Bengal Presidency; and it was mentioned that a Commission had been appointed to enquire into the causes of the famine, the conduct of the relief operations, and the measures to be adopted for preventing a recurrence of the calamity.

The report of the Commission having been laid before Parliament* at full length, it is unnecessary to enter on this occasion upon many of the points therein

* House of Commons Papers, 335 of 1867.

discussed;

discussed; but it may not be amiss to repeat some of the facts and conclusions set forth by the Commission, with regard to the causes which led to the scarcity, and the precautionary measures recommended for adoption in future.

The natural cause of the famine was the premature cessation of the rains of 1865, in the middle of September, throughout the lower provinces of Bengal, and over a portion of the Madras coast. In most of the districts of Bengal, the fall of rain, though irregular and out of season, was not unusually small; but in part of Orissa the total fall was much below the average.

The increased demand for rice in Bengal of late years, partly due to exportation to other countries in Asia and Australasia, and partly to the supplies sent to other provinces of India where rice had been displaced by the cultivation of more valuable products, had tended to raise its value; and though the wages of labour have also in some degree increased, this had not been in proportion to the rise in the price of grain.

The result of the crops of 1865 throughout Bengal was, that in the eastern districts material injury was not sustained; in the central districts, there was a very serious shortness of crop, but not famine, except in a limited tract lying within the district of Nuddea, where timely and liberal measures of relief were adopted, and all considerable mortality was avoided; in the districts to the west of the Hooghly, the low-lying alluvial portions escaped with comparative impunity, but in the still more western province of Orissa, and the higher part of the western districts of Bengal, where the alluvium gives place to a laterite soil, the full extremity of famine was reached. The scarcity having also extended into Behar and the district of Benares, it was impossible for the crops of Bengal to be supplemented from that quarter.

The immediate effect of the failure of the crops was to raise prices to a height which, though not famine point in Calcutta, was really such in districts where rural cheapness of food had been hitherto combined with very low wages of labour; and the labour market being in no way relieved, the labouring and landless classes were very soon thrown out of employment, and reduced to a state of extreme destitution.

Early in the year 1866, evidence was given of this condition of the country around Balasore and Midnapore, by an outbreak of crime, in the form of plunder by gangs of men in whom hunger had destroyed all respect for property. Nor did these grain robberies diminish till the rains and the exhaustion of men and stocks caused such violent crime to subside from inanition.

In southern Orissa the pressure of extreme prices, and consequent suffering, came earlier, but the disorganisation from lawless plunder did not shew itself so soon, nor to such an extent. In this province the fall of rain, though generally sufficient for the cultivation of rice, is very precarious; and the country is extremely subject to the opposite evil of inundations, the rivers being liable to overflow to an extraordinary degree, while the storm wave of the sea occasionally proves an even more destructive enemy, sweeping over the embankments which have been raised for the protection of the low lands.

The natural difficulties of the country had not been much relieved by the artificial remedies; little had been done in the way of irrigation; the rivers were inaccessible to the ordinary class of European vessels; the only protected anchorage, False Point, is so far from any landing place and any civilized and populated part of the country, as to be of little use; while the roads are impracticable, during the rainy season, for wheeled carriages, and communication can at best be carried on only by means of pack bullocks.

The province of Orissa proper is about 200 miles long, and is divided into the three districts of Pooree, Cuttack, and Balasore, the collective area of which is stated to be 8,518 square miles. According to a return recently received from the Government of India, the population, before the famine, was estimated at 3,015,826. In addition to this territory, there is a very large hilly tract in the interior (about twice the size of that above mentioned), which is inhabited by a population partly Ooriah and partly aboriginal, and is under the management of chiefs exercising hereditary jurisdiction, in subordination to the Commissioners of the division. Nothing reliable is known respecting the number of the population of these "tributary mehals."

In all this part of India there is only one rainy season, but the crop is usually sown in such a manner as not to come to maturity all at once. For the most part, the early crop, principally grown on the higher lands, ripens in August

and September, and it bears an extremely small proportion to the late crop, which ripens in December, and on which almost the whole supply of food for the greater portion of the province depends.

When the country came into British hands at the beginning of the present century, there were many semi-independent chiefs, all of whom became British subjects; those in the hill tracts were allowed to retain their territories on the old terms, but the chiefships of the lowlands were annexed to the districts under the British Regulations, the chiefs remaining in possession of the land revenue, subject to a low quit rent, being, in fact, placed in the position of zemindars at a low permanent assessment. Some of the original zemindarees have survived to the present day, and a few have lapsed to the Government, owing to rebellion and other causes. Among these was the principal estate in Orissa, that of Khoorda, held by the representative of the ancient Rajahs of the province, whose mismanagement created a rebellion among his people, which led to his expulsion, and the estate is held in direct possession by the Government. Settlements have been made with the ryots and heads of villages, under which Khoorda had attained a prosperity unknown in any other part of the province.

In the settlement made at the time that the British took possession of the country, the usual Bengal system was followed of recognising a proprietary right in the person who dealt directly with the Government, with a general reservation of all subordinate rights. The record of rights made at the time gave great satisfaction, and the apportionment of the assessment which reserved two thirds for the Government was good according to the ideas of those days, although not equal to the liberal allotment of modern times. which gives half the assets to the zemindar for profit and expenses. There seems, however, to be doubt whether a sufficient margin was allowed, in a province so peculiarly subject to vicissitudes of seasons, to cover the risks of the most exposed estates, in the hands of poor and improvident owners. The practical result was that they were always greedy for remissions of revenue, and a constant struggle took place between the zemindars asserting extreme losses, and the Government distrusting their assertions, and generally with reason. The country enjoyed general peace and contentment, and grain was cheap and abundant; but wealth did not accumulate, wages were very low, and the condition of the people was tolerable rather than good.

Within the last few years, however, a decided improvement had occurred in the position of the agricultural classes in Orissa. Traders from the Madras presidency scoured the country to buy up grain, and an enterprising French house exported it largely by way of False Point. In consequence of the stimulus thus given to agricultural operations, the cessation of the Government manufacture of salt on the coast, which took place in 1863, did not cause the distress which might have been expected from the loss of their earnings by the persons employed in the manufacture, but the effect was, undoubtedly, to increase the class of agricultural labourers whom any derangement of the ordinary operations might throw out of employment and out of food.

As regards the dangers of inundations, the most intense calamity of that nature in the present century was that caused by the sea overflowing the coast of Balasore in 1831–2. To restrain the floods of the rivers, an extenstve system of embankments had been formed, which is maintained partly by the Government and partly by the zemindars; but it was never wholly effectual in great floods, and, in the limited tracts to which these were necessarily confined, the people had become in some degree habituated to them, and general famine had not resulted. This would only arise from drought, which, in the most severe form, had not visited the people for the last two or three generations.

The crops of 1864, though considerably below the average in Pooree, were by no means bad in Cuttack, and very good in Balasore; and the amount of rice exported by sea in the year 1864–5 reached the enormous height of 30,000 tons.

In the following year the scantiness of the rainfall had brought prices in Pooree to a famine rate, even before the total failure in October. In Cuttack the prospects were good, on the whole, till the rain ceased on the 18th of September 1865; and the same may be said of the condition of Balasore.

The thirty years' settlement of the province was just expiring, and no new arrangement had been made, a state of things which tended to contract rather than extend the assessable area and cultivation.

Such was the position of affairs, very briefly stated, in which the end of the year 1865 found the province of Orissa, when it was visited by a calamity, the effects

of

of which were to sweep away, by starvation, and disease resulting therefrom, so many persons that the Commissioners observe that they are unable to say that the estimate one fourth of the whole population is too high, even in parts which did not suffer from the inundations of 1866.

It is not necessary in this report to enter into a minute review of the progress of the famine, or the measures adopted by the Government and its officers, and of private individuals, to relieve the sufferings of the people. It appears sufficient to mention one or two of the chief points bearing on the condition of the country during the season of distress.

As well as can be estimated, the outturn of the crop in Orissa appears to have been about half the usual quantity in the more favourably situated tracts, while in others it was very much less, the total yield being perhaps about a third of the full crop.

A table has been compiled of the prices of common rice, for each week from November 1865 to December 1866, from which it appears that for the five months from April to September the cost of food, in the best supplied markets, ranged from five to ten times the ordinary rate. In the interior of the districts food was generally not to be procured for money, and, when sold, was about 35 times the usual price. Feeding centres were established at which grain was sold, and cooked food distributed; but many of the famishing people were unable, and some were unwilling, to avail themselves of this relief.

The mortality reached its culminating point in August, during the heavy rain and storms which preceded and caused the floods. The people were then in the lowest stage of exhaustion, and the cold and wet killed them in fearful numbers. The damage to the tracts lying near the rivers in the central portions of Orissa was excessive; and, owing to the isolation caused by the floods, the rate of mortality was probably greater there during their continuance than at any other time.

In September there was some slight relief, not only by the extension of the system of supplying food, but also, in most parts of the country, from the ripening of the small early crop of rice. The mortality, however, was not lessened, inasmuch as many who had hitherto survived under the pangs of starvation died as soon as they obtained the meals to which they had long been strangers.

In the final report of the Commission on the mortality caused by the late famine in Orissa, received in February last, the number stated to have perished was 814,469, and 115,028 supposed to have emigrated or disappeared from this province, making a total loss of 929,497. The number of surviving inhabitants now left amounts to 2,086,329. The per-centage of deaths was 27·00; including emigrants, and those missing, the general per-centage amounted to 30·81, as loss of population during the famine.

In the districts where this early crop had been destroyed by floods, the loss terribly increased the prospective as well as the present sufferings of the people.

In November the new crop began to come into the market in considerable quantity, and then the general famine may be said to have come to an end. The people returned to their avocations, leaving only the very emaciated, the orphans, and the widows to be supported by gratuitous relief. There still, however, continued to be more general distress in the unfortunate tracts which had suffered a second calamity by the inundations.

Though special mention has thus been made of the progress of the famine in Orissa, the distress was almost as great in many of the other districts of Bengal, particularly in Maunbhoom, Singbhoom, and Midnapore. From the districts lying nearer to Calcutta, where the crops also failed, great numbers of the people flocked into the metropolis, attracted thither by the reports of the charity which was munificently bestowed by rich Native gentlemen. The great increase of the pauper population in the city called for special measures; a relief committee was formed; camps for the immigrants were instituted, and hospital accommodation was provided. The subscriptions received by the committee were devoted to the general relief of the famine-stricken districts, as well as to the provision for those suffering in Calcutta; and the amount of money thus received and disbursed was about 60,000*l.*, including a sum of 10,000*l.* set aside for the permanent support of the orphans.

With regard to the measures which should be adopted for the future in the province of Orissa, the Commissioners recommend that the present settlement with the zemindars should be renewed for a term of years, in preference to the

Government at once effecting a permanent settlement, the circumstances of the country being unsuited for the necessary revision. The great body of the zemindars having been proved to have failed in their duty as landlords, the Commissioners suggested that, in the cases of those estates which had been so reduced by the past calamities that neither zemindars nor ryots could at once assume their old responsibilities, they should, as the law provided, be taken for a time into the hands of the Government, subject to the usual allowance of a per-centage to the proprietors.

Till the settlement was concluded, the Irrigation Company, whose works were rapidly coming to a point which will admit of their extensive use, could not, in the opinion of the Commission, be said to have a fair field; and it was very desirable to remove all misunderstanding with reference to the revenue to be paid by the zemindars and the ryots.

With regard to the Irrigation Works, the Commissioners recommend that the Government should continue the policy of advancing money to the Company, in order that no interruption might be caused by the state of the money market.

To open the province, now completely isolated at certain seasons, the Commission advised the completion of the trunk road from Calcutta through Cuttack, the improvement of the harbour at False Point, and the prosecution of a system of roads throughout the country.

In the third portion of their report, the Commission have considered the measures which may with advantage be adopted, with the view of preventing a recurrence of such a calamity. First, as regards the promotion of agricultural improvement, they place the question of tenure of the land; and, while unable to determine whether a permanent settlement is not merely a good thing in the abstract, but so good a thing as to render it desirable to obtain it by substituting other taxes for the progressive value of the land which is surrendered, the Commissioners suggested that, in view of the great increase of private wealth which would undoubtedly arise therefrom, at the cost of the public exchequer, the proprietor of a permanently settled estate might be called on to pay a higher proportion of the assets than under the present liberal system he would have paid; and further, that the revenue payable might be expressed in grain, convertible into money according to the average of seasons, struck at intervals of 10 or 20 years. A settlement made on this system, if including, not merely the zemindar but the actual possessor of the soil, would, in the Commission's opinion, combine permanency of tenure with a prospective increase of land revenue to the State, in some degree commensurate with its claims and its necessities.

Next in importance to the tenure of the land they placed the question of improving the great arterial communications which connect the various provinces. Much had been done towards the advancement of this object by the construction of railways; and the Commissioners remarked that the maximum carrying power of these roads might be vastly increased at a comparatively small expense by doubling the lines of rails.

Their further suggestions on this point were, that all future canals should, if possible, be adapted to purposes of navigation in a greater degree than those hitherto constructed in Northern India, and that all considerable roads should be so laid out, wherever the nature of the country admits of it, as to be capable of receiving a light railway.

As regards irrigation, the Commissioners thought that more effectual aid against the effects of famine might be obtained by the cultivation of rice than of any other crop; and while they would not recommend any very general system of irrigation throughout Bengal proper, they thought that occasional deficiencies might be mitigated by increasing the rice supply of neighbouring provinces. At the same time, they advised the examination of a scheme suggested by Sir Arthur Cotton, for bringing water to some of the western districts of Bengal, by damming the Ganges at Rajmahal, and thence conducting a canal through Nuddea and Moorshedabad to Calcutta. A plan for utilising the waters of the Damoodah, on the western borders of Bengal, was also recommended to notice; as well as the possibility of constructing a system of embanked lakes throughout the undulating tracts of the west of Bengal, similar to those which exist in similar countries in Southern, Central, and Western India. The Soane river, already the subject of a great scheme, may supply means of irrigation for the south of Behar; and a careful examination is urged to ascertain what facilities are afforded by the streams on the northern frontier of that province

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If these great irrigation works are to be undertaken by the Government, the Commission recommended the establishment of a general irrigation service, for the supply of officers thoroughly instructed in and devoted to that department.

They also advised that systematic efforts be made, by the study of practical meteorology, to obtain a chart of the rain-bearing currents of air, and to mark their variations, with the view of gathering early indications of peculiarities of season, and thus be enabled to make preparation for coming misfortunes.

In spite, however, of all precautions and improvements, poverty, scarcity, and famine must recur; and one of the effects of the progress of civilization will be, to diminish the number of small proprietors, and proportionally to increase the numbers of the labouring class who are dependent on regular wages, and consequently unable to resist a scarcity even when not amounting to general famine.

The Commissioners were very unwilling to interfere with the feeling of obligation, universally recognised by the wealthier Natives, of supporting their own poor; but they thought that a system of local taxation might be adopted, by which the richer persons of a neighbourhood would be made to bear the burden of local and partial famine, without having resort to the last resource, of imposing general taxation, or appealing to the general charity of the country. On the occurrence of scarcity of such a degree that the poor are unable to support themselves, the zemindars might be bound to support the poor of their estates, by supplying food in return for labour to the able-bodied who are unable to obtain employment, and by feeding gratuitously those who are unable to labour; and, in the event of their failing to do so, the officer in charge of the district might be empowered to summon a jury to decide whether the distress is such as to require relief, and to assess the amount requisite to provide the needful supplies.

The effect of such an arrangement would, according to the opinion of the Commissioners, be, that ordinary poverty would still be left to private charity; that extraordinary want, affecting considerable classes of the rural population who ordinarily support themselves, would be a charge on the land enforced by law; and that extreme famine, affecting the majority of the people, would be a charge on the general revenues of the country, and the subject of appeal to the charity of the general public. In such a case they considered that the Government should supply employment by means of public works, while the public provide the means of gratuitous relief to the helpless; and, in order that works undertaken on occasions of famine may be rendered permanently useful, designs and practical plans should always be in existence, much in advance of the immediate means of execution, but in such a form that they could be carried out in the event of an emergency throwing a large supply of labour on the hands of the Government.

The renewal of the existing settlement of Orissa for a term of twenty years was mentioned in the report (page 4) presented last year; and subsequently the period was extended to thirty years.

The measures suggested by the Commission for a permanent provision for the orphans created by the famine in Orisa, which have met with the approval of Government, are as follow:

A provision at the rate of three rupees per month for every girl up to the age of 16 and every boy till 17 years of age.

The aggregate of such amounts to be placed to the credit of their respective guardians in the names of trustees.

The Commissioner, Collector, and Civil Surgeon of the district for the time being to act in such capacity, and the trust money to be payable to the order of any two trustees.

The guardians to submit to the trustees, *once a quarter*, a statement of the number of orphans, and to receive nine rupees in advance for every child.

Any surplus arising from deaths or other causes to be at the disposal of the trustees for any charitable purpose, with preference for orphans under the care of those guardians with whom such quarterly allowances have terminated.

The Relief Committee estimated that if every child proposed to be supported were to live up to the specified ages, the cost of their maintenance would amount to nearly 40,000*l.*, while the balance in their hands was only about 25,000*l.* It is therefore proposed that this balance be invested in Government securities, or otherwise, so that the fund may, by proper investment, and by the resumption of pensions of orphans who may die, abscond, or be restored to their natural guardians, increase as to be able to meet all demands upon it, the Government of Bengal undertaking the liability of making up the balance, if any, which may eventually be required.

It was further proposed to grant a small donation to deserving boys on their attaining the age of 17, in order to facilitate their settlement in life, with a similar award to the girls on their marriage.

The operations of the Relief Fund have now been brought to a close, and no further expense will be incurred in gratuitous relief.

The harvest was also reported to be a plentiful one, and distress at an end. The stock of rice was being sold off in Cuttack at cheap rates; and all accounts are by this time closed, and the respective officers employed have been relieved of their duties.

An active movement had been commenced among the members of the Native community, with the view of restoring to caste those who have been supposed to lose it, by the imposition of a moderate penance, a measure which will be beneficial in eradicating the effects of the famine upon those who have been thus thrown on public charity, and upon the country in general.

Statistical Department,
India Office,
1 May 1868.

CHARLES C. PRINSEP.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

DURING THE YEAR 1866-67.

(Presented pursuant to Act of Parliament.)

Ordered, by The House of Commons, to be Printed,
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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA,

DURING THE YEAR 1867–68.

Introductory.

The Moral and Material Progress Report for 1867–68 differs slightly from that presented to Parliament in previous Sessions in its mode of treating the various subjects of interest connected with the government of the British Possessions in India. Instead of arranging the divisions of the Report under the different departmental heads, each Government is treated separately, except with regard to the departments of the Post Office, and gaols and gaol discipline. A short outline is given of the geography of each Government, with separate maps, all of which are on the same scale. One general map also shows the whole of British India, distinguishing the presidencies, the separate governments, commissionerships, and agencies under the Governor General.

Reviewing the information detailed in the following pages, the results of the year's administration may thus be summarized:—Litigation has in a great measure decreased in most parts owing to the operation of the Stamp Act, No. XXVI, of 1867, authorizing the levy of a higher rate of fees than have hitherto been exacted; crime has considerably diminished as compared with the previous year, which may be attributed to the fact that a more favourable season accompanied by a plentiful harvest was experienced, and to the greater cheapness of food. In the Central Provinces and in Madras, however, much rain fell, which in the former damaged the crops considerably, and in the latter was so injurious to agriculture as almost to lead to a famine in many dirsticts. The revenues of India on the whole increased, and the health of the people was good; sickness was less prevalent, and the rate of mortality fell as compared with the previous year. Education continued to show a steady advance, both in the number of institutions and in that of the pupils attending them. The police are reported to have worked with satisfaction to their superior officers, both as to their zeal and efficiency; and all the courts of justice, both civil and criminal, worked zealously, as is evidenced in the disposal of the business brought before them.

Railways and sanitation will be treated in separate reports, which will be presented to Parliament. It has therefore been considered unnecessary to dwell upon these two subjects in the Report that follows.

Post Office.

The most important event of 1867–68 connected with the postal department of India was the new contract with the Peninsular and Oriental Company, and the enhancement of the rate of postage on overland correspondence. The arrangements for the conduct of a weekly mail service between Bombay and Europe did not com-

mence till towards the close of the year under review. Without entering into detail on the various points connected with this contract, which have led to much correspondence, it may be stated, in general terms, that objections were taken to the share of the cost proposed to be laid upon India, and particularly to those items representing the cost of the services between Bombay and Galle, and between Galle and Calcutta, on the grounds that the necessity of such lines was advocated by the company as commercial adjuncts of the main lines. It was hoped at the same time that, with a proper distribution of the subsidy payments, there would be no necessity for maintaining the present enhanced rates of postage. The new contract contained a provision for the accommodation of mail sorters, with free passage and without extra charge, on board the company's boats, but this measure did not come into practice till after the year under review.

The local steam services under contract with the British India Steam Navigation Company consisted of the following:—(1), Calcutta, British Burmah, and the Straits; (2), Bombay, Kurrachee, and the Persian Gulf; (3), Calcutta, Bombay, and intermediate ports; (4), Madras, Rangoon, and intermediate ports. The contract for the first of these services expired in September 1867, but was provisionally continued pending a settlement of expected changes in respect of the European mail service. In April 1868 an arrangement was effected providing for a fortnightly communication with Chittagong, a weekly communication with Akyab, Rangoon, and Moulmein, and a communication with the Straits once in every four weeks. The subsidy paid for this service is 2,133*l.* per mensem, of which 108*l.* are paid by the Straits Government.

The contract for the second service also expired in 1867, and was renewed on the same general footing, excepting that vessels proceeding to and from the Gulf are required to touch at Kurrachee, and that power is reserved to require the trips to be made once a fortnight on payment of an increased subsidy at the rate of 2,311*l.* per mensem.

Neither of the other two services underwent any change during the year, but since its close that between Bombay and Calcutta has been made into a fortnightly service, the subsidy being increased from 750*l.* to 1,000*l.* per month. The subsidy for the fourth service remains at 600*l.* a month.

Certain modifications were introduced in the postal establishments, such as the classification into two grades of the five postmasters-general (Bengal, Madras, Bombay, North-West Provinces, and Punjab), with salaries rising by annual increments, according to grade. Owing to the increased responsibility of the office, the salary of the compiler of the accounts also underwent a revision. The central account office was strengthened, principally in what is called the check branch. The salaries of the chief inspector in the Central Provinces and of the Presidency postmasters of Calcutta and Bombay were raised by annual increments. The inspectors and superintendents of mail-carts were divided into three grades, with additional rates of pay according to grade. Supernumerary inspectors were provided at the head-quarters of each of the main circles named above, and one was also attached to the central account office in Calcutta. Four additional inspectors' divisions were created in consequence of the rapid extension in late years of postal operations. A revised and more liberal scale of travelling allowances for inspectors was introduced experimentally. Attention was likewise paid to the establishment of sub-inspectors, the necessity for which measure had arisen from the transfer in some provinces of the control of the district post, and from the increase in the number of small offices and branch lines in the interior of districts.

The increasing use made of the post office as a means of transmitting currency notes has affected the efficiency of this department. In consequence of the strong temptation to dishonesty to which the post office establishments have been exposed since currency notes have been transmitted in this way, it has been proposed to adopt the English practice of compulsory registration in respect of covers containing coin or currency notes, with a double fee on delivery when not previously registered.

During the past year local posts were established in Calcutta and Bombay, the distribution of letters direct from the general office being suspended by an arrangement, under which the mails were collected at, and delivered from, branch offices which were in direct communication with each other as respects local letters. In Bombay it worked exceedingly well, but in Calcutta the experiment proved a failure, from the inability of the deputy postmasters to control the delivery peons,

(who were chiefly Mahomedans, requiring a strong controlling hand over them), and from the difficulty of getting the public to include the names of local districts in the addresses of their letters. The system was therefore altered, and a direct delivery from the general office of all outside letters reverted to, the local deliveries being confined to such prepaid local letters as might be posted with full addresses.

The number of new post offices opened in 1867-68, as compared with 200 opened in 1866-67, was 467, of which 178 were opened in the Bombay circle. The number of letter-boxes had, however, decreased from 288 to 134 in the past year. The total length of postal lines had increased from 47,929 miles to 49,672.

The returns of correspondence for the whole of India, as exhibited in the margin, show an increase of 3,982,535 in the number of covers sent through the post offices, or 6·11 per cent. over the previous year. The number of letters increased 6·22 per cent.; newspapers 3·70 per cent.; parcels 6·16 per cent.; and books 19·39 per cent. An analysis of the letters sent through the post office shows an increase of 6,768,375, or 23·97 per cent. over that of the previous year; in unpaid letters, the increase was 767,816, or 3·56 per cent.; service letters decreased by 3,940,391, or 49·72 per cent.; and registered letters increased by 70,293, or 5·87 per cent. A further analysis of the letters shows that 83 per cent. were delivered, and 17 per cent. were retained for re-issue. The number of covers mis-sent increased from 67,745 in 1866-67 to 71,812 in the year under review. In the dead letter department of the respective offices in India 40·65 per cent. of the whole number were returned to senders, and 59·35 per cent. of the letters were retained as undisposable.

	1866-67.	1867-68.
Number of—		
Letters -	58,901,162	62,567,255
Newspapers -	5,217,825	5,411,110
Parcels -	613,575	651,426
Books -	439,750	525,056
Total -	65,172,312	69,154,847
Increase -	- - -	3,982,535

The number of highway robberies of mails decreased from 43 to 30 in 1867-68; of these 19 occurred in foreign territory, as compared with 26 in the previous year, a reduction due mainly to the exertions of the political authorities in the Madras and Bombay circles, and especially in Hyderabad and Kattywar, where such robberies were most frequent.

The total strength of the permanent employés of the post office was 21,271, against 20,866 in 1866-67.

The financial results of the post office may be considered satisfactory. Receipts from private correspondence increased from 355,927*l.* in 1865-66 to 361,124*l.* in 1866-67, and to 377,461*l.* in 1867-68; and the disbursements in the same years were 418,863*l.*, 437,507*l.*, and 475,494*l.*; the increase in the last year was partly due to additional expenditure on account of special trains for overland mails; to the payment of compensation on account of horses lost from epidemic disease in the Central Provinces; to the postal service in Abyssinia; and to enhanced rates of pay to runners, &c. which the increased cost of living, and the greater demand for labour rendered necessary. The revenue from official postage, which has not been included in the previous figures, fell from 500,800*l.* in 1865-66 to 288,976*l.* in 1866-67, and to 230,984*l.* in 1867-68, a result which is attributed to a change, introduced in 1866, in the rules regulating the transmission of service covers, and the mode of bringing their postage to account. The greater portion of this apparent reduction was due to the exemption of official correspondence conveyed within the limits of the same district, and not sent by or addressed to any privileged officer. The exemption here alluded to was but of a temporary character, and when removed it was expected that the revenue from official postage would rise again considerably.

Gaols and Gaol Discipline.

A very important paper on the subject of gaols and gaol discipline in India has recently been received, prepared by Mr. Howell, under secretary to the Government of India, in the Home Department, with the view of giving a brief outline of the history of gaol management in British India and of showing as accurately as possible the present state of the gaols in each province; and from it the following information has been taken.

History of Prison Administration in India.—The first practical measures on any large scale towards prison reform were initiated by Lord Macaulay, who, shortly after his arrival as a member of the Indian Law Commission, recorded a minute (dated 14 Dec. 1835), in which he called the attention of the Council in India to the subject of prison discipline, and pointed out the possibility of establishing a system not much inferior in efficiency to that which existed in the United States. He moreover suggested the appointment of a committee for the purpose of collecting information as to the state of the prisons then existing, and of preparing a scheme for improved prison discipline in India. In particular he recommended that such committee should be instructed to report on the state of the gaol at Allipore situated in the immediate neighbourhood of Calcutta, and to suggest such reforms as would make that prison a model for other similar establishments in various parts of India. Sir C. Metcalfe, then governor-general, readily received the suggestions offered, and accordingly appointed a committee in 1836 consisting of a president and 13 members, comprising not only men whose opinions would command respect in England, but some of the ablest representatives of the Indian civil service at the time. Their report was presented in the early part of 1838, and has since been looked to as the standard authority whenever principles of prison management and prison discipline have been in question. The main reason why more was not at once effected was the expense likely to be involved in carrying out the measures then suggested, besides which there existed other difficulties in the way of prison reform in India, which were ably summed up by Lord Auckland in his resolution upon the committee's report. It was not, therefore, till 1844 that the next great step was taken in the direction urged by the committee of 1836. An application was submitted in that year for the appointment of an inspector-general of gaols for the North-West Provinces, which, after some demur on the part of the Government of India and the Court of Directors of the East India Company on the ground of expense, was ultimately sanctioned for two years as an experiment. The object of this appointment was to effect an "improvement in the health and discipline of the prisoners, a reduction in the periods of imprisonment, and at the same time a material diminution of expense." In 1849 the lieutenant-governor of the North-West Provinces by a comparison with the statistics of former years conclusively proved that this object had been fairly attained, and that "the prisoners were generally more healthy, that they were better lodged, clothed and fed, that gaol discipline had been much improved, and that the expenditure had been reduced." After an experiment of six years this appointment was made permanent in 1850. The example thus set by the North-West Provinces was rapidly followed in the Punjab, in Bengal, in Madras and in Bombay; in the minor administrations a similar office has been also created at different dates, and at the present time there is not a single province (except Coorg) in British India, in which the local government has not the benefit of the advice and experience of an officer whose whole time and attention is devoted to the important subjects of gaol management. The creation of these appointments was considered of sufficient importance to be referred to especially by Lord Dalhousie in the minute in which he reviewed all the great measures of his prolonged administration.

The third important measure of prison reform was likewise initiated in the North-West Provinces. Up to the year 1860, the management of the district gaols devolved upon the magistrate. But it was found that in the progress of administration these officials were so overwhelmed with the multifarious business of all departments, that they were unable to "find time to regulate the "management, economy, and discipline of the local prison with the care and the "exactness which the pecuniary interests of the government, and the purposes of "the civil administration demand." Another and most suitable agency was therefore found in the civil assistant surgeons. Hitherto the civil surgeon had only medical charge of the local gaol; henceforth he was to have the entire charge, and an allowance for the additional duty with a small office establishment was sanctioned. This arrangement was confirmed experimentally by the Government of India in 1862 and finally allowed in 1864 upon the local governments showing that in every one of the 25 gaols to which civil surgeons had been appointed there had been a marked improvement in their discipline and economy; the gross annual cost had decreased by more than 1*l.* per prisoner, and there was a net profit of over 4,200*l.* from gaol manufactures. A similar course was adopted

in the three presidencies of Bengal, Madras, and Bombay, and a regular scale of allowances sanctioned for the charge of a district gaol according to the average number of prisoners therein confined.

The last and most recent great measure of improvement was the appointment of a Committee in 1864 under the orders of the late Viceroy Sir John Lawrence. The recommendations of this Committee were based generally upon those of the Committee of 1836 and were circulated for the guidance of all the local governments and administrations, and the Government of India promised their sanction to the necessary provision of funds for giving early effect to any carefully matured proposals for increasing gaol accommodation wherever it was manifestly insufficient. There were, however, two important points in which this last Committee differed from that of 1836; *first*, that no central gaol (intended for prisoners sentenced to a term exceeding one year) should be built for more than 1,000 prisoners; *second*, that the minimum space allotted to each prisoner should be 9×6 feet, or 54 superficial feet, and $9 \times 6 \times 12$ feet, or 648 cubic feet.

Gaol Buildings.—The native governments which preceded the British left nothing in the shape of a prison according to the modern acceptation of the term. Their proceedings partook more of a summary character, and it would seem as if they had particularly objected to spend money upon a criminal. Hence the duty of providing gaol accommodation devolved entirely upon the British Government, and the work has not been carried out in all the provinces without some difficulties, which have been in a great measure considerably enhanced by the recommendations of the last Committee before mentioned. As regards central gaols the recommendation was not new inasmuch as it originated with the Committee of 1836. The first step towards their introduction was taken by Sir George Clerk when lieutenant-governor of the North-West Provinces. The experiment which commenced at Agra proved entirely successful, and the prisons at Bareilly and Allahabad were shortly after made central gaols. In 1861 a strong application was submitted to the Government of India with a view of completing a system of central prisons for the North-West Provinces, which was followed by others to the same effect from the Governments of Oude and the Central Provinces. In the Punjab, soon after its annexation, proposals for a similar establishment were submitted, and the first central prison was completed at Lahore in 1852, at which time two others were reported to be nearly finished.

In Madras the necessity for central gaols is fully recognized, and as far back as 1857 it was proposed to construct five such buildings, of which two have been commenced.

In Bombay nothing appears to have been done in this direction prior to 1864.

In the Lower Provinces of Bengal also it was reported by the lieutenant-governor in 1864 that "the principal defects pointed out by the Prison Com-" mittee of 1836 still exist although in a diminished degree," and that beyond two abortive attempts to establish penitentiaries, no practical steps had been taken in the matter of central gaols.

On receipt of the report of the Committee of 1864, the Government of India called for returns from all local administrations showing the amount of gaol accommodation existing at that time, and the number of prisoners of all classes for whom it was considered desirable to provide in each district; the general result deduced from the replies was that the average number of prisoners throughout India amounted to 74,000, whilst at the rate of cubical space recommended by the Committee for each man, accommodation only existed for 52,000; thus showing that a large expenditure would be necessary for new buildings. Without calling for further details, the Government of India expressed its readiness to entertain on its own merits any proposal for gaols that might be submitted.

In considering the designs prepared, the Government of India were guided by the principles laid down by the gaol committee of 1864 which were as a rule adopted, except in cases where the cost was inordinately high.

The estimated cost of gaols sanctioned during the past four years varied from 19*l.* to 58*l.* per prisoner, including the value of convict labour. There was much discussion as to whether the employment of such labour really effected any saving, considering the extra expense incurred in the necessary guards, and the loss of profit experienced from the absence of intramural labour. Such employment, however, was looked upon with favour by the inspectors general

of prisons for the North-West and Central Provinces and for the Punjab. The discussion of this important question had been hitherto treated with regard to its financial training. From this point of view no general conclusion could be deduced, as the result would be affected by the price of labour in the districts and the number of guards required for the convicts so employed. The committee of 1836 recorded their opinion strongly in favour of intramural labour as being cheaper to Government than the extramural employment of prisoners, which entailed a dead loss on the State. But the most important part of the question was obviously its effect on prison discipline. All authorities on this point were unanimous as to the decided superiority of discipline that could be enforced under a system o intramural labour. The same committee found that "no single consideration of prison discipline had been regarded in the extramural system," and where the object was the completion of a building rather than the discipline of convicts. In all probability the same remark would be applicable at the present time to their employment on public works. Such employment was therefore urged as being objectionable; but, when owing to structural defects the existing accommodation did not permit of an efficient system of intramural labour, there appeared to be no alternative but to decide the question on purely financial grounds.

The following statement exhibits the number of gaols sanctioned by the Government of India for construction since May 1864, with the number of prisoners intended to be accommodated, and the probable cost.

Presidencies and Governments.	Number of Gaols.	Number of Prisoners.	Cost of Gaols.		
			Cash Outlay.	Convict Labour.	Total.
			£	£	£
Madras - -	3	2,897	93,812	5,864	99,676
Bombay - -	1	1,270	73,451	—	73,451
Lower Provinces of Bengal -	2	182	38,517	431	38,948
North-West Provinces - -	6	5,559	94,964	49,685	144,649
Punjab - - -	3	1,234	24,043	—	24,043
Oude - - - -	2	1,446	23,547	16,000	39,547
Central Provinces - -	9	4,203	121,445	18,455	139,900
British Burmah - -	4	568	32,068	—	32,068
Berar, or Hyderabad Assigned Districts.	2	1,120	39,979	2,368	42,347
Central India - - -	1	198	4,942	—	4,942
Mysore and Coorg - -	4	1,570	38,501	1,726	40,227
Total - -	37	20,247	585,269	94,529	679,798

The statement in the margin shows the amount expended on central gaols from 1st May 1864 to 1st April 1868, with the grants for the year 1868–69. It will be seen that great progress has been made in gaol constructions in all provinces with the exception of Bengal and Bombay since the report of the last committee of 1864. With respect to Bombay the delay has been occasioned by the very large expenditure which that Government represented to be necessary, amounting to no less a sum than 110*l.* per prisoner. A large central gaol has, however, been commenced on an estimate of 58*l.* per prisoner. The delay in Bengal is attributed to the time taken to prepare a standard design, but during 1867–68 the Government of India

	Total Expenditure from 1st May 1864 to 1st April 1868.	Grant for 1868–69.	Total.
	£	£	£
Bombay - - 2 gaols	20,037	11,600	31,637
Madras - - 5 gaols	84,946	27,576	112,522
Lower Provinces of Bengal 3 gaols - - -	3,080	20,200	23,280
N.W. Provinces 4 gaols	25,188	12,100	37,288
Central Provinces 4 gaols	81,873	14,100	95,973
Berar, or Hyderabad Assigned Districts 2 gaols	31,662	4,000	35,662
Total 20 gaols	246,786	89,576	336,362

sanctioned one, the works of which were to be commenced immediately at four places where large central prisons are urgently required.

Cellular System.—Allusion is in this place made to the cellular system without understanding which any notion of gaol buildings in India would, in a measure, be incomplete, the more particularly since strong arguments have recently been put forward in favor of its introduction into India. No little ambiguity arose during the discussion of this question as to the precise definition of the term. The recognized systems of imprisonment may be thus classified:—

1. Complete isolation of the prisoner in a separate cell by day and night without labour of any kind and without communication with other prisoners or with any prison official.
2. Isolation by day and night in a separate cell with labour and official inspection.
3. Isolation in a separate cell at night, with labour in association with other prisoners during the day.
4. Association with other prisoners at night, and in labour during the day.

The first two systems may be termed the solitary, the third the separate system, and the fourth is the common imprisonment. Of the four systems the first has been tried in America but long since abandoned as inhuman in practice and dangerous to life. The second would appear to be the system contemplated by the English Prisons' Act of 1865. The third is that which has been so strongly advocated for introduction into India; while the fourth, with certain modifications, is as the system at present existing in that country. Most of the local governments advocate the introduction of the third or separate system, but, at the same time admit an objection on the score of expense. The most strenuous advocate of the separate system is Dr. Mouat, the Inspector-General of gaols in Bengal, who instances France in particular, where, he asserts the system in question has been fully tested and finally adopted, and he adds that the Committee of 1836 also recommended its adoption. But this Committee in fact only recommended a separate cell for each prisoner in the penitentiaries where long term prisoners are confined and not in the district gaols. In France on the other hand the system was abandoned under a circular order issued by M. Persigny dated 17th August 1853 in these terms:— "Le Gouvernement renonce à l'application du régime cellulaire pour s'en tenir" "au régime de la separation par quartiers." M. Léon Vidal, Inspector-General of prisons in France, reported also that the cellular system had not produced any of the results expected towards an improvement in the moral discipline of the prisoners, and moreover raised an objection on the ground of expense and on sanitary grounds; he recorded as his opinion that more suicides took place under the cellular system than in prisons in general, a view which has infinitely greater force in a climate like India where the thermometer reaches 120° in the shade. The expenditure involved in the recommendations of Dr. Mouat was estimated as something between 12 and 25 millions sterling. On a reference made by the Government of India on this important subject Her Majesty's Government replied in a despatch dated 25th April 1868 to the following effect:—

"27. While we are not able on sanitary grounds to admit the necessity or even the expediency of the separate cellular system, we also consider that the other arguments used in support of it apply in India only partially and with diminished force. As regards moral considerations, it is to be remembered that prisoners are already to a great extent classified, and that the number of habitual offenders in India forms a far smaller proportion of the gaol population than in most other countries. A very large proportion, especially of the more heinous crimes, are perpetrated under the pressure of immediate temptation by persons not usually habituated to crime; the convicts in Indian gaols may indeed be said to be comparatively little removed from the moral status of the rest of the population, and the worst criminals being separated by judicious classification, there is little chance of moral deterioration. There is very little analogy in these respects between prisoners in India and in England.

"28. We do not, therefore, deem that grounds have been shown for adopting even experimentally the cellular system for gaols in India."

From this extract it will be seen that the objections urged against the adoption of the cellular system are similar to those raised by the Inspector-General of Prisons in France, and on these grounds the Government of India has decided that a proportion of 15 to 17 per cent. is all that is required in the way of separate confinement.

Inspection and Superintendence.—As has already been stated there is an inspector-general in every province of British India excepting Coorg, who is responsible for the proper management of the gaols subjected to his charge, and who is the adviser of the local government in all matters relating to prison discipline. The total cost of inspection and superintendence, that is to say, for salary and allowances of inspectors, superintendents, and establishment charges for central and district gaols throughout India amounted to 102,690*l.* per annum. In the Hyderabad Assigned-Districts the work of inspection devolved upon the inspector-general of the Central Provinces, a small monthly allowance being allowed to him in addition for the duty imposed.

With regard to the recommendation of the gaol committee of 1864 on the appointment of medical officers not only to the charge of central, but also of district gaols, it has not been found practicable to carry out this view in Madras, owing to the paucity of medical officers in that presidency, and, therefore, the medical and administrative charges have been divided. But the Government of India not approving of this division suggested that a medical officer should be appointed to the entire charge of gaols wherever his services could be made available. As a rule European gaolers are employed in central gaols; at both central and district gaols native medical officers also are attached, and the minutest directions are prescribed by the gaol codes for the routine of daily duty. The superintendents of gaols are under the immediate control of the inspector general of the province, thus forming a separate department in each administration. In the Central Provinces, however, the civil surgeons hold executive charge subordinate to the deputy commissioners, and are not in direct correspondence with the inspector-general.

Health and Mortality.—The most vulnerable point in gaol administration appears to be the mortality among prisoners confined. The death rate of the gaol population varies considerably in each province of British India, and on comparison of one year with another, nor can it be said whether such mortality is excessive when there exists no means of ascertaining the death rate of the free population. The committee of 1836 found that "there exists no known data from which to infer the mortality of the laboring classes in this country." The committee of 1864 found the data as much wanting then as 28 years previously, and the same want appears to exist at the present day; recently, however, attempts have been made in all parts to obtain trustworthy returns of births and deaths, but such as have been received in accordance with orders issued in 1864 are not deemed satisfactory; the appointment of a sanitary commissioner for each province has, however, enabled the Government of India to call for a systematic effort on the part of the respective local governments towards attaining this most desirable and important object.

The gaol committee of 1864 found that the causes of sickness and death in Indian prisons principally sprung from (1), overcrowding, bad ventilation, conservancy, and drainage; (2), insufficient food, clothing, cleanliness, and inspection; (3), sleeping on the ground, and (4), exaction of labour from unfit persons. It has already been pointed out in a cursory manner what has been done in the matter of buildings, superintendence, inspection, labour, and overcrowding; and it now remains to show what remedies have been effected towards conservancy, drainage, food, clothing, cleanliness, and sleeping on the ground.

In the gaol codes of all provinces the dry earth system of conservancy has been enjoined for universal adoption, and the minutest instructions have been given for deodorizing and burying the excreta. In every gaol the dry-earth is now the only recognised system of conservancy, and all authorities are agreed after prolonged experience of its excellence. This subject has been already treated in last year's report upon the moral and material progress of India.

As regards drainage the rules in force prohibit the use of any drains whatsoever, except saucer drains to carry off surface drainage within the gaol and its precincts, and even their passage through the gaol wall is closed except in the rainy season. Then with reference to cleanliness all the gaol codes in the Bengal Presidency prescribe the construction of special bathing places on a standard plan; that each prisoner shall bathe once a day unless prevented

by sickness; that prisoners shall wash their clothing; and that punishment be inflicted on any prisoner found dirty in person or clothing.

In considering the diet of prisoners, the committee of 1836 was of opinion that the fare was very superior to the food usually obtained by the labouring class, and remarked,—"That attention cannot be too much devoted to keeping convicts "sufficiently fed to work in health, and just sufficiently supplied with grateful "condiments to digest their food and no more. To make honest labourers on "hard fare pay for supplying a dishonest labourer with luxurious fare appears to "us a direct injustice, attended with indirect evils still more injurious than its "direct justice." They further added "in making that general revision of the "allowances to convicted prisoners, which is the least of the reforms we recommend on the subject of diet, we are of opinion that no greater provisions ought "to be made in each district than may be sufficient for purchasing, as the staple "article of the prisoners' food, the coarsest grain on which the mass of the people "of that district lives."

The committee of 1864, however, took a more indulgent view of the requirements of a prisoner, and recommended animal food, such as fish, flesh, and milk with its various products, such as ghee, curds, &c.; that there should be two meals a day; that the diminution of food should not be resorted to as a punitive measure; that it was of the highest importance that the food supplied to the prisoners be properly and completely cooked, and that there should be no tampering with the quantity of food either by means of false scales, or through deduction of portions as perquisites for distributing subordinates. These recommendations have been fully carried out in all the gaol codes in which labouring and non-labouring scales of diet have been prescribed. The prison fare allowed was therefore, far superior to that obtainable under the system to which the committee of 1836 referred. According to the last reports, however, greater attention and more minute superintendence are required in some gaols in order to secure to the prisoners the prescribed quantities of food; this always has been and will be a matter of great difficulty in a country where petty peculation is a recognized institution.

In the matter of clothing, the recommendation of the committee of 1864, that suitable covering should be provided for all prisoners, whether tried or untried, with extra clothing for the sick, aged, and infirm, has been generally adopted in all gaol codes, the statement in the margin will exhibit comparatively how far the charge for diet and clothing has been affected by the recommendation of the said committee; it should be stated at the same time that under the more strict surveillance introduced since 1863 an increase in the average charge means a far more than proportionate improvement in the diet and clothing of the prisoners.

Presidencies or Governments.	Diet.		Clothing.	
	1863.	1867.	1863.	1867.
	£ s. d.	£ s. d.	s. d.	s. d.
Lower Provinces of Bengal	1 19 3	3 4 9	6 0	9 2
Bombay	3 15 2	4 3 9	8 3	11 3
Madras	3 1 8	5 1 7	7 2	7 10
North-West Provinces	1 5 8	1 15 6	3 0	5 9
Punjab	1 2 6	2 5 1	4 10	7 4
Oude	1 3 4	1 6 10	5 10	3 9
Central Provinces	1 11 7	2 7 9	6 0	11 0
British Burmah	2 12 0	3 0 6	4 10	5 6

The same committee, though they considered sleeping on the ground extremely injurious to health, were unable to offer any specific remedy to obviate the evil. A remedy was, however, subsequently, recommended by the Sanitary Commission of the North-West Provinces, and approved of by the Government of India. Sleeping berths were provided which removed the prisoner from the ground without facilitating his escape or supplying him with the means of offence. They were dry and clean, and could not be used as receptacles for concealing forbidden articles, while at the same time they greatly improved the ventilation and ensured each individual being kept distinct and apart, prevented overcrowding, and cost little or nothing. Sleeping accommodation on this pattern has been introduced in all the provinces, except Madras, and in Bengal its introduction was delayed till 1867, when its adoption was prescribed by the Inspector-General, under orders of the Government.

The following statement exhibits the average mortality in the gaols of the several provinces named, for the last five years:—

Presidences or Governments.	Average for Five Years.			
	Prison Population.	Death Rate.	Daily average.	Death Rate.
Madras - - - -	26,992	3·26	8,842	9·99
Bombay - - - -	21,447	1·71	6,005	6·16
Lower Provinces of Bengal	90,677	1·70	19,462	7·61
North-West Provinces -	70,349	1·07	16,292	4·33
Punjab - - -	32,345	1·43	9,985	4·65
Central Provinces - -	14,563	2·26	3,155	8·29
Oude - - -	17,313	2·79	5,773	8·63
Mysore - - -	15,719	1·25	2,133	8·68
Hyderabad - -	—	—	788	7·22
Burmah (4 years) - -	11,138	3·20	3,759	9·34
Total average -	60,108	3·73	15,238	14·98

The highest death-rate for Madras, Punjab, Central Provinces, British Burmah, and Mysore, was in the years 1864 and 1865; for Bombay and the Lower Provinces of Bengal in the years 1865 and 1866; and for Oude, North-west Provinces, and Mysore in 1863. The average death-rate on the daily average of prisoners in the ten provinces above named amounted to 3·94 in 1867–68. From this it may be inferred that mortality among prisoners is on the decrease.

Classification.—In India the classification of prisoners is much more elaborate than in England. In all the provinces the separation of males from females, juveniles from adults, and tried from untried prisoners has been the rule as well as practice. In the central gaols and in the penitentiary of Madras paid matrons are appointed to the charge of female prisoners, though as yet in the smaller gaols this is not the case. The introduction of a complete system of female warders was, however, under consideration.

In Bombay there are no paid female warders, as the female prisoners are few and easily managed; and long-term convicts are considered sufficient for the purpose. Their principal employment consists of different kinds of cane-work and weaving. At Poona many of the female prisoners make their own clothing. But a greater difficulty exists in regard to instruction, which can not be entrusted to male agency, while none of the female prisoners are capable of communicating it.

In all the larger gaols of the Lower Provinces of Bengal female warders are selected from among the convicts; in the smaller gaols there were few females, and those of very short term; the long-term prisoners are transferred to the prison for women at Russa. All internal work of the wards is performed by the female prisoners, excepting the removal of the night soil, which is usually done by the agency of male convicts, under charge of a guard. With the exception of the superintendent, the official visitors, the medical officer, and the gaoler, no other man has access to the female wards at any time. The female prisoners never leave the enclosure under any pretence whatever. No attempt has been made towards their instruction, since female teachers are not procurable. Sanction has, however, been obtained to the transfer of a European female prisoner under sentence of penal servitude, as an experiment, with a view to teaching the women at Russa various industrial occupations which may be useful to them on release.

In the North-West Provinces the best-behaved females have been selected as warders, and they have given satisfaction in the discharge of their duties. The female prisoners are employed in spinning and weaving, and in some gaols are expert in the use of the fly-shuttle loom and in knitting stockings.

The female penitentiary at Lahore in the Punjab was established in 1863, and placed under charge of a European matron, the warders also being females. A teacher has been attached to this prison to superintend the school arrangements. No males have access to this prison, except in the presence of the matron. Though the female prisoners are to a certain extent under male officials every precaution is taken to keep the sexes separate.

In Oude, on the other hand, female prisoners are never allowed to mix with the males by day or by night; they inhabit an entirely different quarter of the gaol, where they have their own barracks, kitchens, workshops, and wells. In the central prison a European woman has been appointed as matron, where they learn

needlework, knitting, and such like. There are no male warders, and their treatment is different from that of the males. Irons are never imposed upon female prisoners, nor is their hair cut as a punishment. The same difficulty exists with regard to native female teachers as in Bengal.

In the Central Provinces the practice prevails of maintaining discipline among female prisoners by warders chosen from among themselves. An old male warder guards the outer gate of their enclosure, and no male is allowed access but the superintendent and the gaoler. Attempts have been made to educate them through the more capable of their number, who receive special instruction for the purpose, but much difficulty has been experienced considering the raw material to be dealt with. In smaller gaols male supervision is necessary, though under strict precautions. They are employed in the same occupations as when at their own homes.

Similar arrangements as to separation exist in British Burmah, the Hyderabad Assigned Districts or Berar, Mysore, and Coorg.

In the classification of male prisoners greater difficulties exist in the system of association by day and night. The committee of 1836 were not over sanguine on the subject of classification, nor were they unanimous in pointing out any definite or practical recommendation. The committee of 1864 based its system of classification thus:—

I. Offences against the person:
   (*a.*) With premeditated malice.
   (*b.*) Without premeditation.
II. Offences against property:
   (*a.*) Aggravated robbery or theft.
   (*b.*) Simple theft.

In the then existing district gaols this system could not be completely carried out, and separation according to sex, age, religion, and nature of punishment was considered to be of prime necessity.

In Bengal the defects in the structure of the smaller and more remote gaols render classification, beyond what has been stated above, impracticable. The rules prescribed by the gaol code are somewhat in advance of the system actually in force. The nearest approach to their requirements has, however, been effected in the Presidency gaol, Alipore gaol, and in the penitentiary at Hazareebaugh. In the majority of the rest of the gaols the prisoners work together by day, but are placed in wards at night, in accordance with the nature of their sentences.

The same remarks are applicable to the gaols of Madras and Bombay Presidencies. In the North-West Provinces, however, the system of classification is more advanced than in any of the above local governments, which is attributed to the fact of there being more central gaols and of older standing.

In the Punjab some sort of classification was in practice as early as 1858, and the subject received renewed attention in 1862. It was not, however, till 1867 that the recommendations urged by the committee of 1864 were adopted. This classification is much more elaborate than that previously in force. Considerable difficulty has been experienced in carrying out the system on account of the faulty structure of the gaols, to rebuild which would have involved a large outlay. The local government had not been unmindful of this evil, and has recognized the necessity for some remedy; the delay in providing it is simply owing to the inability of raising the money necessary to introducing the separate system.

In Oude, the Central Provinces, and British Burmah the male prisoners have been divided into four classes, as recommended by the Gaol Committee of 1864, each class being distinguished by a different coloured badge. But in the Assigned Districts of Hyderabad or Berar the gaols are not in a sufficiently advanced state to admit of any complete system of classification. The completion of works has, however, been urged on with a view to its early introduction.

Efforts have been made towards classification of male prisoners in the gaols of Mysore and Coorg also, but it is considered unsafe to keep all the worst characters always together. Here greater reliance is placed, for the safety of a gaol, in the prisoners' mutual mistrust of one another.

It will thus be admitted that the proper principles of complete classification have been fully recognized in India, and carried out wherever central gaols have been completed.

Discipline and Management.—In all provinces the treatment of prisoners under trial corresponds very closely in practice with that prescribed by the regula-

tions attached to the English Prisons Act of 1865. The object of preliminary imprisonment was simply to secure the attendance of the accused on the day of trial, all reasonable indulgences compatible with this object and with prison discipline were generally granted to this class. They are allowed to wear their own clothes, cook their own food, and communicate with their legal advisers; no labour is exacted from them, but cleanliness is rigidly insisted upon. Civil prisoners are treated in a similar manner. The labour to which prisoners are sentenced in India is divided into three classes, while that prescribed by the English Prisons Act is only two, and the proportion of each class of labour is regulated according to the length of sentence of each prisoner. The transfer of a prisoner from one class to another is regarded as an indulgence dependent on conduct, and not as a right. The labour of each working prisoner is also regulated by task work equivalent to that performed by a free labourer of the same craft. Each such prisoner is required to perform 10 hours work, exclusive of the time occupied for meals. The sick and aged are only employed on such light work as may be determined by the medical officer. It does not appear, however, on closer perusal of the reports on gaols of the respective provinces, that the rules laid down on the subject of labour have been rigidly enforced, it would seem more probable that the primary object of the sentence—punishment—was laid aside for the practice of making prison labour remunerative to Government, with a view of making these institutions in a measure self-supporting. The Inspector-General of Prisons was strongly of this opinion, and had carried these views into practice in the Lower Provinces of Bengal, inasmuch as he points out that the net profits of prison labour in the gaol at Alipore increased from 250*l.* in 1835, to 25,000*l.* in 1867; that in three of the district gaols the sum netted on manufactures not only covered the cost of maintenance of the prisoners, but also produced a surplus; and that during the last 14 years the prisons in the Lower Provinces of Bengal had yielded a net profit of 400,000*l.*

In the North-West and Central Provinces, and in the Punjab, the same tendency exists with regard to the enforcement of pleasant and remunerative labour. But in Oude stringent orders have been issued against this mode of dealing with prisoners under sentence. The practice in Madras is more generally to employ the prisoners in extramural labour, such as road-making, quarrying stone, brick-making, and at times to place them under the orders of officers of the public works department.

In Bombay the gaol manual prescribes that no kind of handicraft is to be introduced that is neither penal nor profitable, from which it may be inferred that any handicraft that is penal or profitable may be introduced. According to the last gaol report received (1866–67) out of 5,923 prisoners sentenced to labour, 1,327 or nearly one-fourth are employed on manufactures, by which 5,934*l.* had been netted as profits of the year.

In the matter of rewards, punishments, and remission of sentences, the practice varies throughout India. In some provinces, it would appear, any prisoner can earn remission of his sentence; in others only certain prisoners can do so; in others again no system of remission is permitted at all.

In the Lower Provinces of Bengal the only rewards to which prisoners are entitled, are, promotion to offices in the gaols, and the grant of intermediate imprisonment. Remission of sentences is not systematically allowed, though granted under orders of the Government for any special act of good service. The punishments in force are fetters, solitary confinement, and flogging; recently the Government sanctioned the introduction of penal diet in the place of whipping under certain restrictions.

In Madras the system of rewards is similar to that in the Lower Provinces of Bengal, and there exists also a system of remission of sentences. The punishments are flogging, extra labour and double irons, restriction of diet, and solitary confinement.

In Bombay the system of rewards resembles that of the Lower Provinces of Bengal and Madras as regards promotion to prison offices, excepting with regard to such prisoners as are sentenced for the more heinous offences. There is nothing in this presidency to correspond with the mark system, or with that of remission of sentence, or with that of intermediate imprisonment. The punishments consist of solitary confinement, confinement in stocks for 12 hours, and corporal chastisement. In the case of convicts transported to this presidency, a system of tickets-of-leave exists under a notification of the Government of India, dated 26 July 1866

under which convicts obtain conditional release and are enabled to earn their livelihood in complete liberty.

The system of good-conduct marks was introduced in the North-West Provinces in 1861, and has worked successfully in the central gaols, but not in those of the districts; prisoners are also eligible to promotion to prison offices after a uniform period of probation, and they are reported to be "the most trustworthy "officials of the class." Remission of sentence can be earned by marks under special order of Government. Intermediate imprisonment has not been introduced. Punishments are the same as in Madras.

In the Punjab and in Oude the same practice prevails as in the North-West Provinces. In the Central Provinces the system of marks and promotion to prison offices likewise prevails, as also the Bengal rules of intermediate imprisonment. The same disqualification exists with regard to remission of sentences as in Bombay. The punishments are increased labour, refusal of permission to see relatives, solitary confinement, heavy irons, and whipping.

In British Burmah the rewards are interviews with friends, and promotion to certain prison offices. Remission of sentence can be earned under the same exceptions as in Bombay. But there is no system of intermediate imprisonment. The punishments consist of solitary confinement, fetters, and flogging for males. But females are punished by the straight jacket, or handcuffs, or by having their hair cut close.

In the Berar or Hyderabad assigned-districts the rules regarding rewards and punishments are the same as those in force in the Central Provinces, but the gaols are not sufficiently advanced to admit of their being fully carried out.

In Mysore the punishments are fetters, separation in a punishment yard, extra labour, punishment exercise, wearing a mask, and place in bad-conduct list, which entails solitary confinement with or without labour, the latter on non-labouring rations, and whipping. The rewards consist of promotion to gaol offices, permission to see friends, badge for industry or good conduct, issue of fruit, books to read, and place in the good-conduct list, which carries with it certain small privileges. A mark system is also in force.

In Coorg the Punjab rules are enforced.

Education.—Though in India the efforts of the State may appear to have been insignificant when the number of those who were of a proper age to receive instruction are taken into consideration, yet the subject has not been entirely neglected. All the gaol codes have been unanimous in enforcing some provision for this purpose. The gaol reports of each province or administration (with the exception of Hyderabad and Coorg, where education has not yet been introduced,) mention the progress that has been made towards the instruction of prisoners from year to year, by means of well-behaved convicts, who are sufficiently educated themselves; no paid agency has been employed. In the North-West Provinces particular attention has been paid to this subject since 1854, and according to the last report on gaols, 13·55 per cent. of the prison population are stated to have been taught to read during incarceration, and ·86 per cent. to write, notwithstanding the fact that no less than 10,787 out of 29,350 prisoners admitted during the year were for periods under three months. In British Burmah, it is alleged, seven-tenths of the prisoners have been found to be able to read and write their own vernaculars; hence English is the form of education that has been introduced.

Finance.—The gross annual cost of gaols and prison establishments in India, exclusive of building charges incurred in the department of Public Works, amounted to 470,869*l.* in 1867; and the average total net cost to Government per prisoner was about 6*l.* During the five past years the net cost per prisoner had increased from 2*l.* 15*s.* to 5*l.* 6*s.* in the Lower Provinces of Bengal. In Bombay the total net cost rose from 6*l.* 4*s.* per prisoner in 1863–64, to 8*l.* 7*s.* in 1865–66, but fell again to 6*l.* 7*s.* in 1867–68. In Madras it was 8*l.* 18*s.* in 1867–68, the information for earlier years not being given. In the North-West Provinces the net cost rose from 3*l.* 17*s.* to 4*l.* 11*s.* in 1867. In the Punjab it was 3*l.* 4*s.* per head in 1863, from which period it increased to 4*l.* 14*s.* in 1867. In Oude during the same time it rose from 3*l.* 15*s.* to 5*l.* 2*s.* in 1866, but fell again the following year to 3*l.* 10*s.* In British Burmah the net cost to Government has been reduced from 6*l.* 2*s.* in 1863 to 5*l.* 13*s.* in 1867–68. In Hyderabad the net cost per prisoner to the State had risen from 6*l.* in 1863 to 8*l.* 6*s.* in 1867; and in Mysore the actual cost of a prisoner to the Government amounted to 5*l.* 10*s* in 1863, rose to 9*l.* per head in 1866, and fell again in 1867 to 7*l.* 17*s.*

The following statement exhibits the average charge per head for each prisoner in each province in 1867 under the chief items of gaol expenditure:—

Presidencies and Governments.	Establishments.			Diet.			Clothing.		Medicines and Hospital Charges.		Contingencies.	
	£	s.	d.	£	s.	d.	s.	d.	s.	d.	s.	d.
Lower Provinces of Bengal -	2	4	0	3	4	9	9	4	1	7	6	3
Bombay - - -	4	6	0	4	3	9	11	6	4	6	14	2
Madras - - -	2	14	6	5	1	2	8	4	0	11	13	6
North-West Provinces -	1	18	0	1	14	7	5	9	1	0	7	9
Punjab - - -	2	2	4	2	5	0	7	8	2	6	4	5
Oude - - -	1	18	10	1	6	10	3	9	1	3	5	3
Central Provinces - -	2	13	4	2	7	9	11	0	7	10	6	7
British Burmah - -	3	9	10	3	0	6	5	6	0	2	7	2
Mysore - - -	2	19	4	4	4	0	9	3	1	10	14	3

Reformatories.—There are no reformatories in India bearing any analogy to those in England. No provision existed in the Indian legislation similar to those of the English Acts, under which judicial officers are empowered to sentence a juvenile offender (under 16 years of age) to confinement in a reformatory in addition to, and at the expiration of the sentence passed on him at time of trial. Act XIX. of 1850 of the Indian Code alone contains any provision of this nature; under it a magistrate is placed in the position of a guardian to any child belonging to the vagrant class, and convicted of any petty offence; the magistrate is also empowered to bind such child over to any fit employment, not exceeding seven years, and until the age of 21. But this Act has become almost obsolete, and no steps have been taken towards its revival. The first attempt at any systematic establishment of reformatories in India, on a legal basis, was submitted in 1862 by the Government of Bombay. Similar applications have been made from time to time by other local governments, but the Government of India ruled that reformatory institutions, founded on the English model, were not adapted to India, and pointed out the necessity for strict separation from adults of juveniles regularly convicted. It was also ruled that during their term of incarceration every practicable attempt should be made for the instruction and reformation of youthful offenders. Juvenile wards exist in the various prisons of most of the provinces, and a separation of boys and adults is invariably enforced when circumstances permit. In the Bombay Presidency there is an establishment called the David Sassoon Industrial and Reformatory Institution, which owed its origin to private benevolence; it is quite apart from the gaols, and under different management and control. In the Punjab also there is a reformatory in connexion with the gaol at Sindapore, to which boys under sentence for more than six months are sent. In all the provinces of India such measures as are suited to the circumstances of the country for the treatment of juvenile offenders have been sanctioned, and are in operation.

Transportation.—Sentences of transportation from India are carried out exclusively in the penal settlement of Port Blair, situated on the south-east shore of the southern island of the Andamans, in north latitude 11 °42′ and east longitude 93°. Prior to 1858 native convicts under sentence of transportation were sent to the Straits Settlements of Singapore, Penang, or Malacca. From Bengal they were also sent to one or other of the stations on the Tenasserim coast. From Bombay they have been despatched to the Mauritius; while from the Straits convicts under transportation were despatched to Bombay. Since 1858, however, the settlement of Port Blair has continued to grow, superseding all other places of deportation for convicts from Hindostan; but inasmuch as this settlement affords facilities of escape, convicts from British Burmah are still transported to Bombay.

In consequence of the large increase in the number of convicts at the settlement of Port Blair in the year 1863, and the want of available accommodation, the death-rate in the first-named period rose to 21·55 per cent.; and in 1864 to 15 per cent. for males, and 5 per cent. for females. Owing mainly to overcrowding and insufficient shelter it has been found necessary to place some restriction on the number sentenced to transportation; accordingly orders were issued in 1864, to the effect that such sentences should only be carried into effect in cases where the term was for 14 years and upwards; this restriction has not since been relaxed. The number of convicts at Port Blair at the close of 1866 amounted to

6,686. The annual expenditure was about 130,000*l.*, and the accommodation was capable of containing 7,000 convicts.

The Lower Provinces of Bengal.

Physical outline.—This territory is under the control of a Lieutenant-Governor subordinate to the Governor-General of India; it contains eight regulation provinces named Bhagulpore, Burdwan, Chittagong, Cuttack, Dacca, Presidency, Patna, and Rajshaye. Also three non-regulation provinces named Assam, Chota-Nagpore, and Cooch Behar. The native states of Sikkim, Muneepore, Hill Tipperah, and the Cuttack Mehals are included in this government.

The countries which bound the Lower Provinces on the north are Nepaul, Tibet in the Chinese empire, Bhotan, and sundry tribes eastward which do not appear to be under the control of any superior. On the north-east, at the extremity of Assam, the seat of a Chinese or Tibetan governor is reported to be within thirty miles of the British frontier. Southward, the Patkoi mountains divide Assam from the kingdom of Burmah and the state of Muneepore. The latter is situated on the northern extremity of the Yomadung mountains; which further south separate Cachar in the province of Dacca, and also Chittagong, from the kingdom of Burmah. Chittagong lies between the summit of the mountains and the Bay of Bengal. It is the south-easternmost of the Lower Provinces and has British Burmah on its southern frontier. The Bay of Bengal also washes the shores of the Dacca, the Presidency, Burdwan, and Cuttack provinces, and forms the southern boundary of the government till it meets the Madras Presidency. On the west the Lower Provinces are confined by the Central Provinces, the Indore Agency, and the North-West Provinces of the Presidency of Bengal.

Area and Population.—The total area of this Presidency covers an extent of 240,462 square miles, and contains a population amounting to 41,658,522 according to the latest information received. This gives a density of about 173 to the square mile for the whole of Bengal including a few native states, which is about equal to that of Prussia, where the density is stated to be 172, or to that of North and South Germany combined, which include Prussia and Austria in Germany, where the area is given at 281,625 square miles, containing a population of about 50,560,786. Again, on a comparison with France, where the area is given at 208,054 square miles (exclusive of Corsica), with a population of 37,219,843, the density in Bengal will be a little less than in this part of Europe. The population of the chief Presidency town of Calcutta, has been given at 377,924, of which the Europeans and Indo-Europeans numbered 22,260; Hindoos, 239,190; and Mahomedans, 113,059. The area of Calcutta being eight square miles, the density of the population will be found to be as much as 47,240 to the square mile, which is more than double the density of the population of London, taking its area at 122 square miles according to the limits assigned by the Metropolis Local Government Act, and supposing it to contain a population of 2,803,989.

Administration.—The eight regulation provinces are sub-divided into 36 districts. Each province is governed by a commissioner, under whom each district is managed by a magistrate-collector. The non-regulation provinces form three commissionerships with 19 districts, including the native state of Cooch Behar, recently brought under British management; each district is controlled by a deputy commissioner, with the exception of that of the Garrow Hills, which is managed by an assistant commissioner. There is a legislative council for making laws and regulations composed of 13 members, of whom four are natives, and the Lieutenant-Governor is president. A high court has been established since 1862, under Letters Patent, which is presided over by 13 judges, including the chief justice; of these, five are barristers, and seven civil judges, besides one native gentleman, all of whom are appointed by Her Majesty. Justice is administered throughout the interior by 26 civil and sessions judges, and two judicial commissioners with similar powers in the non-regulation provinces of Assam and Chota Nagpore. The deputy commissioners of the Cossyah and Jynteeah Hills and of the Naga Hills, as well as the assistant commissioner of the Garrow Hills, possess the powers of a sessions judge. All these officers, moreover, exercise powers under Act XV. of 1862, to try, according to the provisions of the Code of Criminal Procedure, all offences not punishable with death, and to pass sentences of imprisonment not exceeding seven years. The deputy commissioner of Cachar also exercises powers under the same Act, and with those of a civil judge. In the Cooch Behar division the criminal sessions are held by, and the judicial appellate and controlling authority is vested in, the commissioner.

Hitherto the uncovenanted civil judges were of four classes, but on the passing of Act XVI. of 1868 this arrangement was somewhat modified, and they now consist of small cause court judges, subordinate judges, and moonsiffs. The jurisdiction of the last has been enlarged, the office of Sudder Ameen has been abolished, and subordinate judges have been invested with all powers of judges of small cause courts. Moonsiffs have also similar powers to the extent of 5*l.*

In the city of Calcutta there are two stipendiary and 56 honorary magistrates, of whom many are natives.

In the interior of the regulation provinces the 36 collectors of revenue are also chief magistrates in their respective districts. There are also 33 joint magistrates and 327 magistrates of lower grades, of whom 61 are honorary and 266 stipendiary. Of the stipendiary class, three are military officers, 79 are covenanted assistants, and 184 are members of the uncovenanted executive service.

In the non-regulation provinces, besides the deputy commissioners, there are 32 honorary and 57 stipendiary magistrates; of the latter 25 are assistant commissioners, 18 extra assistant commissioners, and 14 uncovenanted officers. The total number of magisterial subdivisions in the regulation provinces is 77, and 13 in the non-regulation provinces. 290 Hindoos and 93 Mahomedans were employed in the subordinate judicial and executive service at the close of the past year, as compared with 111 officers of European extraction, including native Christians.

By a resolution dated 19th August 1867 the Government of India invited the attention of the Government of Bengal to the orders of Her Majesty's Government, directing a careful review of the question of the employment of natives in offices of trust, and of the expediency of modifying the existing state of things, so as to meet the urgent political necessity created by the progress of education. The decision aimed at by the Government of India was to the effect that it did not at present contemplate anything beyond the promotion of deserving and carefully selected natives from inferior posts (to which they were already eligible) to assistant commissionerships in the non-regulation provinces, and the proportion which they might bear in Assam to the higher offices was fixed at one-fourth; the definite proportion of natives to European officers of the grade of extra assistant commissioners for general adoption of the strength was fixed at one-half; the local Government being left free to employ the largest number of natives that could be so engaged with advantage to the public service. The Secretary of State, in noticing the resolution above referred to, observed that the principle of opening the public service to natives of ability and character might be carried out not only in the non-regulation, but in the regulation provinces, as besides the more important and responsible appointments reserved by law to the Covenanted Civil Service, there were many appointments scarcely less honourable and lucrative to which the natives of India had a preferential claim. The Government of India has accordingly asked the Government of Bengal to bear the wishes of Her Majesty's Government in mind.

As the case now stood, it may be stated that out of 486 appointments in the Civil Service of Bengal, 363 were held by natives, 40 by East Indians, and 83 by Europeans. In the Education Department, though the higher places were for obvious reasons held by Europeans, yet out of 129 appointments 102 were held by natives. The higher ranks of the police service were filled almost entirely by Europeans in former times, but recently the Lieutenant-Governor appointed three natives to be assistant superintendents, and four others as special assistants in the detective branch of the service. During the past year also a native gentleman was appointed a district superintendent of police, and two natives assistant superintendents.

Her Majesty's Government having approved of the scheme for the re-organization of the judicial and revenue establishments of extra regulation provinces and districts, exclusive of the subordinate judicial service, they will now consist of one commissioner for each division of Assam, Chota Nagpore, and Cooch Behar respectively, with a salary of 3,300*l.* a year; two judicial commissioners, at 3,000*l.* a year each; 18 deputy commissioners of four grades, at salaries ranging from 1,200*l.* to 2,200*l.* a year for each grade; 26 assistant commissioners of three grades ranging from 600*l.* to 960*l.* a year, according to grade; and 17 extra assistant commissioners of four grades, at salaries ranging from 300*l.* to 600*l.* a year.

Four new subdivisions in Assam have been sanctioned by the Government of India during the past year.

The committee appointed for the revision of the salaries of all the ministerial establishments throughout Bengal submitted a scheme which has met with the

approval of the Government of India. The total increase recommended amounted to 80,390*l.*, but the portion proposed for the English officers (2,572*l.*) has been disallowed. The rest of the scheme was sanctioned on the understanding that the whole of the surplus receipts of the Peon's Fee Fund were to be credited to the Imperial Government. It was further ordered that no officer was to be admitted to the benefit of this new scale of salaries unless considered fully fit for such admission, nor without carefully ascertaining whether reductions in the number borne on the existing establishments might not be made.

Several changes were made during the year in the system of half-yearly examinations of covenanted assistants and others under this Government. The examinations which have been hitherto held at divisional head-quarters will, in future, be held at any station where there is a district judge; the local committees at such stations to consist of the judge, the magistrate and collector, and a native member nominated by the judge. Henceforth they will merely superintend the paper part of the examinations; the written answers will be sent to the sub-committee of the Board of Examiners for purpose of examination and the assignment of marks. The marks for conversation will be assigned by the local committees, whose decision is to be considered final, the paper of marks assigned being sent to the sub-committee.

Many instances having occurred of uncovenanted officers not being able to pass the prescribed examinations of the first and second standards within the time allowed, the rules on the subject have been modified, with a view of enforcing more stringently the penalties on failure.

In consequence of the number of applicants, both English and native, for employment in the public service having very much increased, an experimental measure has been determined on, so as to make the appointments to the subordinate executive service on a combined plan of nomination and competitive examination. It has been accordingly laid down that three nominations are to be made by the Lieutenant-Governor of Bengal for every appointment, and that selection from among these will be made by competition. All candidates will be required to pay a fee of 1*l.* prior to examination, and the fund so formed will go towards meeting the expenses incurred.

Judicial.—The operations of the High Court of Bengal on its original side for the past two years are exhibited in the accompanying comparative statement. In addition to these there were 1,427 miscellaneous orders passed which have not been included in the return. On its appellate side 4,554 appeals were instituted against 4,697 in 1866, thus showing a decrease of 3·04 per cent. The total number of cases which had the right of appeal to the High Court, whether regular or special, was 20,895 against 18,090 in the preceding year.

	1866.	1867.
Number of cases instituted during the year.	1,056	1,050
Total under trial - - -	1,467	1,575
Disposed of - - -	1,023	1,162
Pending at close of the year -	525	413

The number of appeals decided in this court was less by 815, while those pending at the close of the year were greater, the increase appearing under every head and description of appeals. As regards regular and special appeals, the files of the court were heavier at the end of the year than they have ever been since 1863.

	1866.	1867.
Appeals decided -	4,444	3,629
Appeals pending -	2,087	3,013

The increase of 5,793*l.* or 21·45 per cent., in the value of stamps filed in legal proceedings on the appellate side of the High Court is attributable to the operation of the new Stamp Act. The value of property under litigation, however, was 891,447*l.* against 1,228,663*l.* in 1866.

There has been a general decrease in the amount of work executed during the past year in all the ordinary civil courts of the districts in Bengal, not including the courts of small causes. Though it is impossible to assign this general decrease to any particular cause, yet there is presumptive evidence of its being partly, if not mainly, owing to the operation of the new Stamp Act (No. XXVI. of 1867). There was a sudden increase in the institutions between the passing of the Act and its coming into operation, many plaintiffs taking

	1866.	1867.
Suits instituted -	141,737	133,914
Suits pending -	24,994	20,359

advantage of the interval to escape the enhanced rate of duty; which was followed by a lull during the latter eight months of the year.

The arrears in the courts of more than one year's standing, as given in the margin for the last four years, will exhibit a marked improvement under this head. The number of these cases on the files of the native courts at the end of 1867 was inconsiderable. The great bulk of these arrears appeared to have been on the files of the higher courts to which remands were made directly from the High Court.

	1864.	1865.	1866.	1867.
Pending cases of more than one year's standing -	1,260	642	749	513

The aggregate value of suits decided in 1867 fell 3·7 per cent. in comparison with the previous year, but the value of those pending had increased by 14·4 per cent.

	1866.	1867.
	£	£
Aggregate value of suits decided.	4,179,842	4,022,355
Ditto pending -	1,932,393	2,257,443
Net amount of stamp fees realized.	180,715	211,115
Total cost of Civil Courts to Government.	174,195	176,711
Balance - -	6,520	34,404

The net revenue derived from stamp fees increased by 30,400*l.*, or 16·83 per cent. on that obtained in 1866. The aggregate expenditure by Government on account of the civil courts also increased by 2,516*l.* since the close of the previous year. The Government of India sanctioned an increase to the salaries of uncovenanted judicial officers with retrospective effect from the 1st of January 1867, which will raise the expenditure by a sum of 32,310*l.*; the total cost of these courts for the past year will therefore be 209,021*l.* This enhanced aggregate will still be within the increase realized from stamp fees.

In the non-regulation districts the number of suits original and appeals instituted and disposed of showed an increase in the amount of work done, and the number of suits pending at close of 1867 was 1,295, against 1,509 of the previous year. Besides these the annexed abstract will show a comparison of the miscellaneous work done by all the courts in these districts.

	1866.	1867.
Original and appeal suits :—		
Suits instituted - - -	13,961	14,582
Suits disposed of - -	25,494	26,998
Miscellaneous :—		
Number of cases under trial -	55,639	56,649
Disposed of - - -	53,769	54,229
Pending at close of the year -	1,870	2,420

The number of suits instituted in the Calcutta Small Cause Court fell from 37,204 in 1866–67 to 30,214 in 1867–68, and the amount of property under litigation also decreased from 191,138*l.* to 164,570*l.* The receipts from fees during the past year amounted to 21,659*l.*, while the cost of establishment was 15,628*l.*, thus leaving a balance of 6,031*l.* to the credit of the court, against a surplus of 7,486*l.* during the corresponding period of the preceding year.

With reference to the annual savings of this court a suggestion was considered during the past year as to the propriety of reducing the scale of fees, but this was rejected on the ground that the rates were already so low as to make the institution of a suit, with even a remote chance of success, a profitable speculation. At the instance of Her Majesty's Government certain propositions were considered, with the view of applying the surplus to some purpose consistent with the objects of the court, and useful to those concerned in or resorting to it. Of these the formation of a good library has been sanctioned, and an outlay of 1,000*l.* authorized for the purchase of the necessary books and furniture; also the employment of an establishment at an annual cost of about 50*l.* An increase has also been granted to the first judge of this court, from 2,400*l.* to 3,000*l.* by annual increments. The salaries of the clerk and deputy clerk have also been raised in a similar manner; and on the question of a general re-organization of the establishment of the Calcutta Small Cause Court, among the many points suggested, the Government have sanctioned the substitution of stamps for fees; this has been provided for by Act XV. of 1868, as well as the temporary appointment of a registrar, with judicial powers for the disposal of undefended cases and routine business, as an experiment. Other officers of the court have also received increases to their salaries, and an improved system has been sanctioned for carrying on and recording the monetary transactions of the court.

In the exercise of its original criminal jurisdiction the High Court had to try 359

persons, of whom 253 were convicted, 89 acquitted, 13 discharged without trial; thus leaving four persons under trial at the close of 1867. In its appellate jurisdiction 1,510 criminal appeals from the regulation and non-regulation districts were heard, which were considerably more than those of the previous year.

In reviewing the results of trials in the courts of magistrates for 1867, comparatively with the year preceding, there appeared to have been a considerable falling off in the numbers both of cases tried and of persons under trial; but it should be remembered at the same time that the statistics of 1866 had been naturally affected by the famine which then raged in several districts, and which was explained more fully in last year's report. The entire amount of criminal business disposed of by magistrates was 256,250 cases of all classes.

	1866.	1867.
Number of cases - - -	80,920	68,382
Persons under trial - -	150,431	127,098

The attention of Government having been drawn to the want of proper agency for the prosecution of criminal cases in the High Court, a public prosecutor was accordingly appointed, and a distinct department added to the office of the solicitor to Government for the conduct of criminal business. A code of rules had also been laid down for the guidance of magistrates, and arrangements made for enabling the public prosecutor to watch every serious case passing through the police court of Calcutta, and for facilitating the execution of his duties in regard to such cases.

Police.—The police of Bengal are reported to be of four kinds, as will be seen in the marginal statement, showing the total strength of the force to be 214,848 men, and their annual cost 827,017*l.*, giving an average cost of 3*l.* 16*s.* 7*d.* per man. Besides the amount received by the village police in payment of their services, many of them hold rent-free lands. The strength of the regular and municipal police combined, is in the proportion of 1 to every 1,364 of the inhabitants, and of 1 to 7·3 square miles of country, at a cost of about 3*d.* per head of population.

	Number.	Cost.
		£
Regular Police - - -	25,578	420,694
Municipal ditto - - -	3,734	33,356
Village ditto - - -	184,846	361,710
Railway ditto - - -	690	11,257
Total - -	214,848	827,017

The number of persons arrested without warrant, and of those prosecuted by information before magistrates during 1867 as compared with 1866, are exhibited in the margin, and show a considerable decrease in the crime returned for the past year, which is ascribed to two causes, viz., first, the cessation of famine, and second, the operation of the clause in the new Stamp Act, under which petty complaints are instituted by a petition on stamped paper. The decrease in heinous offences was no less than 2,368. Offences committed against the person, however, show a considerable increase over those of the two previous years, while the increase in the number of convictions is not by any means in proportion. The number of offences committed against property with and without violence show a favourable comparison with the two previous years, being much less in 1867, while the results as regards convictions have in like manner improved, though the per-centage of convictions to offences was less than in 1866. The total number of offences ascertained to have been committed, including those cognizable and not cognizable by the police without the special orders of a magistrate, decreased from 152,935 in 1866 to 111,307 in 1867, and the per-centage of convictions was 59, or nearly the same as in the previous year. The value of property stolen amounted to 109,382*l.*, of which 32,027*l.* was recovered. The per-centage of the latter to the former increased from 26·33 in 1865 to 29·30 in 1867.

	1866.	1867.
Persons arrested -	171,138	126,762
Persons acquitted -	62,191	51,140
Persons convicted -	101,436	67,851
Persons ordered to find security.	5,633	1,279
Persons released without trial.	4,415	2,784

A system of river patrol was introduced during the past year on some of the large rivers of certain districts in consequence of the absence of adequate protection for passengers and traffic, similar to the plan already in practice in the Sunderbuns and on the Hooghly, which it is hoped will have the effect of securing greater safety to life and property than hitherto.

The measure introduced in the previous year towards amalgamating the municipal

with regular police was carried out in the past year, and has already led to a considerable saving in the Imperial revenue in some districts. The aggregate savings would, it was expected, more than cover all charges, including pensions, due consideration being at the same time had for the efficiency of the police.

The Rajah of Jhargaon, in the district of Midnapore, has consented to the introduction of a regular constabulary in the place of the police hitherto maintained by him. The local officers have been called upon to draw up a scheme for giving effect to the change proposed, and to fix the annual payment to Government towards defraying the cost thereof.

Further measures have been taken towards preventing Dacoity approvers from engaging in the commission of crimes, by orders being issued that no approvers should be allowed to remain more than three years in any district, and that in redistributing them care was to be taken that men of the same gang should not be allowed to remain together. This general transfer has had the desired effect of breaking up criminal associations both among the approvers themselves and between them and the bad characters in the neighbourhoods in which they were settled.

Registration of Assurances.—The result of the working of this department shows that 187,850 registrations had been effected against 166,979 during the eleven months of the previous year, or adding one-eleventh to the latter for the purposes of comparison against an aggregate of 182,158, thus giving an increase of 5,692 registrations, or upwards of 3 per cent. Of the above total 119,700 were compulsory, and 68,150 were optional, against 92,970 and 74,009 respectively in the preceding year. Of the optional registrations 41,335 affected immoveable property, and 26,815 related to money, lands, and personal contracts. The receipts, from all sources, of the department during the past year amounted to 33,978*l.*, and the expenditure to 25,018*l.*, leaving a surplus of 8,960*l.* Against this, however, was to be set certain charges amounting to 2,956*l.*, which reduced the net surplus to 6,004*l.* The average cost to the public of registering each document rose from 3*s.* 6*d.* to 3*s.* 7½*d.*, including every description of receipts. The ordinary fee actually paid, however, only averaged 1*s.* 11*d.* The offices of district registrar and sub-registrar underwent some reconstruction during the past year, and four new offices have been opened.

Revenue.—The current demand continued to exhibit a steady advance. The collections also have increased, while the remissions have been considerably reduced, and a large balance appeared at the close of the past year on account of land revenue. This last item was shown to be greatest in the Burdwan, Chittagong, Cuttack, and Dacca divisions or provinces. The number of estates had increased from 193,472 in 1862–63 to 228,681 in 1866–67, and to 229,140 in the subsequent year.

Land Revenue.	1866–67.	1867–68.
	£	£
Current demand - - -	3,788,090	3,799,664
Total demand including arrears -	3,978,149	4,125,149
Collections - - - -	3,645,803	3,721,062
Remissions - - - -	12,733	9,854
Balances - - - - -	319,613	394,233

The price paid for redemption of land revenue in Calcutta and its suburbs was hitherto fixed at 15 years' service, while the rate in the interior was 20 years' purchase for petty holdings; but since the expectations anticipated had not been realized, the rate has been altered to the same as in other places, and consequently raised to 20 years' purchase.

In the Administration Report for 1866–67, it was stated that an exceptional clause had been added to the Waste Land Rules, by which tea planters were permitted to throw up any one or more of their lots, and to accumulate all the payments made on account of such lots, towards the payment of any particular lot which they wished to retain. During the past year further concessions have been granted by Government to proprietors desirous of relinquishing their lands, and the extent to which planters have thus availed themselves of the permission accorded is considerable. The area of grants relinquished to the end of 1867–68 was 72,806 acres, while that of land sold and subsequently given up amounted to 274,541 acres. At the instance of the Landholders and Commercial Association, further modifications were made in these rules, relating to the terms on which leasehold grants were to be held in the tea districts of this Presidency, by which leaseholders have been released from every obligation but that of keeping a *bonâ fide* tea garden, the conditions of clearance having been cancelled.

It is satisfactory to note a considerable falling off in the number of suits instituted under the rent laws during the past year as compared with 1866–67, being 96,928

and 107,047 respectively. The disposals were 103,125 suits and 2,046 applications, against 124,616 suits and 2,666 applications in the preceding year, and the number of suits pending at the close of the year was also less by 1,158. The appeal files also showed a favourable comparison in the disposal of 5,381 cases out of 5,884 in 1867–68, against 6,064 cases out of 6,724 on the file in 1866–67. The total value of suits instituted and applications fell from 888,047*l.* to 642,977*l.* in the year under review.

The question of the re-settlement of Assam was considered during the year in connexion with the survey operations which were being conducted in that province, and it has been decided that the assessment throughout Assam should be raised to 2*s.* per beegah, or about 6*s.* an acre, for garden land; from 9*d.* to 1*s.* 3*d.* for the low rice lands; and from about 6*d.* to 1*s.* per beegah for other lands. The fullest discretion being left with the Commissioner to carry out the measure as may be most expedient, the term of the settlement was fixed ordinarily at ten years. The new settlement will follow the professional survey as closely as possible.

The total net revenue derived from duties of customs levied in the various parts of this Presidency amounted to 3,068,294*l.* in 1867–68 against 2,659,716*l.* in the preceding year, showing an increase of 408,578*l.* The gross collections in the port of Calcutta alone showed a net increase of 396,417*l.* The aggregate value of the trade of this port showed a slight increase on the preceding year, which was principally among articles imported liable to duty, and in the free exports, while free imports and exports paying duty showed a decrease as compared with 1866–67, the most noticeable item being that of British cotton piece goods, the importations of which were very heavy, and the clearance extraordinarily large in spite of a falling market for six months of the year. There was also an increase in the imports of salt, twist, rice, copper, patent metals, spelter, wines, spirits, and rum; but particularly in the value of hardware and ironmongery. Among free imports may be mentioned coke, coal, machinery, agricultural implements, paper and books, as showing the largest increase during the past year. The decrease in value of articles imported was most observable in tin, (in which the trade had been overdone in the preceding year), quicksilver, other metals, malt liquors, and groceries.

The articles exported liable to duty which showed any increase in value during the past year were rice and other grains, the exports of which had increased nearly double in quantity in spite of the augmentation of duty; the quantity exported however was less than in 1864–65 and previous years. Oil seeds also showed a large increase in value owing to the tariff rates having been raised, but the quantity exported decreased from 3,705,829 cwts. to 3,411,754 cwts. Among free exports, opium, jute, hides, skins, tea, and silk showed the largest increase in value; but of these only jute, tea, and silk had increased in quantity. Tea has now become a very important article of export trade. Among the articles exported liable to duty, indigo and shellac fell off considerably in value, and among the free articles, cotton, saltpetre, grocery, and wool. There was also a decrease in the quantity of silk exported, but the price of this article had been kept so high that the value had increased by 80 per cent.

The import and export of bullion showed a decrease as compared with the previous year. The import of gold fell to the extent of 204,947*l.*; that of silver was less by 3,564,956*l.*, and of crown imports, 412,895*l.* The exports of gold decreased by 93,819*l.*; silver by 268,831*l.*, and in crown, 265,375*l.*

The interportal trade of Calcutta, with other ports, showed a very great and continuous decrease in both imports and exports; the bulk of the decrease being with Burmah, since that latter province has taken to trading with foreign ports direct instead of through Calcutta, as in past years.

The trade with America slightly increased, but that with Australia fell off very much in 1867–68.

The necessity for an immediate revision of the tariff valuations of British piece goods was strongly urged by the Chamber of Commerce at Calcutta in November 1867, and recognized by the Governments of Bengal and India. A committee was accordingly appointed to effect a temporary re-adjustment upon all cotton manufactures, except bleached and fancy goods, and to make such other amendments as might be deemed necessary; but the main reasons on which the Chamber asked for a revision of the tariff, viz., the great fall in cotton and cotton manufactures, no longer existing, the committee recommended a postponement of the question until the value became steady.

The total quantity of salt cleared during the past year increased to 5,801,677 cwts. from 5,774,426 cwts. in 1866–67. The quantity of Government salt cleared in 1846–47 amounted to 3,446,312 cwts., but in 1867–68 it fell to 1,073,875 cwts., while that imported increased from 1,252,606 cwts. to 4,513,918 cwts. during the same period. The net revenue realized amounted to 2,504,574*l.* against 2,640,390*l.* in the preceding year. The decrease shown in Government salt was partly owing to a less quantity of salt being passed for consumption, but more particularly to a great reduction in the sales, the proceeds of which included value as well as duty. On the other hand the realizations from the sales of private salt considerably increased.

A sudden rise in the price of salt at certain parts in Cuttack drew the attention of Government to the general question of the supply in that province, and to the expediency of revising the salt manufacture on their own account, or of Government undertaking the importation and retail sale of salt. The first of these propositions was rejected at once. With regard to the second, after due inquiry had been instituted, the interference of Government was considered unnecessary, particularly as any measures adopted by them might be prejudicial to both traders and manufacturers. A proposal to supply the province with Government salt at reduced rates, in order to lessen the inducements to illicit manufacture or smuggling, was also rejected after consideration. The Government of India, however, granted permission for the maintenance of an increased preventive force in the Balasore and Cuttack districts, a measure which was found to be absolutely necessary with a view of suppressing smuggling. It has been found necessary to re-establish the pass stations of Howrah and Sealdah, for the purpose of checking illicit traffic in salt through the railways. The subject of placing bonders of salt in private warehouses in the same position as bonders in Government warehouses, as regards allowance for wastage, was also under consideration during the past year. Her Majesty's Government recommended the issue of two classes of licences for private warehouses, according to the security of the golahs in each case; those of the first class being granted to well-built golahs, secure from depredation, and entitling the bonder to have his salt dealt with according to the rules applied to the salt bonded in Government warehouses; while those of the second class were granted to golahs of an inferior description, the bonders in them being held liable to pay duty on all excess wastage under the same rules as at present in force.

The net revenue derived from Provision Opium in 1867–68 was 4,673,703*l.* against 3,784,933*l.*, and that obtained from Abkarree Opium fell from 211,668*l.* to 204,568*l.* The actual increase of revenue during the past year was 881,671*l.* The actual receipts, from 47,999 chests sold during the past year, amounted to 6,392,731*l.*, thus giving an average price of 133*l.* 3*s.* 8*d.* per chest. The gross yield for the year was 6,543,698*l.*, and the gross charges amounted to 1,869,995*l.*, leaving a net revenue of 4,673,703*l.*, the highest amount ever realized from the cultivation of opium in Bengal. In consequence of the increased demand for this article in the China market, the Government of Bengal has sanctioned the provision being raised from 45,000 to 48,000 chests, and that the area of cultivation should not be reduced to less than 750,000 beegahs, or about 2,250,000 acres. Measures have been taken also to prevent illicit traffic of opium by railway, and for checking the importation of opium manufactured in the Hill States which was brought into the plains for sale.

The net revenue from excise increased from 469,658*l.* to 533,522*l.* in the last year, a result principally attributable to the returning prosperity of the people and to reduction in the per-centage of general charges in the gross revenue.

The aggregate revenue derived from stamps also increased from 1,118,080*l.* to 1,317,153*l.* in 1867–68 The number of bi-coloured stamps manufactured increased by 3,499,858, while the increase in the number issued was 3,703,382.

The Government of India having proposed to amend and consolidate the whole law relating to stamp duties, a committee consisting of a president and five members with a secretary was accordingly appointed at Calcutta, to consider and report on any section of the present Act which might seem to require amendment, and in the interior of this presidency Commissioners were asked to obtain the opinions of certain European and native gentlemen upon the subject. Some of the replies had been submitted to the Government of India, but the majority of the reports had not come in by the end of the year under review.

The result of the operations of the Licence Acts XXI. and XXIX. of 1867

shows that the aggregate collections credited to Government amounted to 166,250*l.*, and that the number of assessments made on licences issued was 188,223. The expenditure incurred on account of establishments was 17,399*l.*, which was about 10·4 per cent. on the collections. By an order of the Government of India, all missionaries were exempted from this tax, as also Hindoo priests, in so far as the religious character of their profession was concerned. The enforcement of the tax on professional courtezans and native female dancers and singers was likewise prohibited. Special exemptions were also authorized in certain tracts of country where civilization was backward, or in consideration of the precarious character of the trade carried on amongst them. During the cyclone of 1867 the operation of the tax was suspended in the presidency division in consequence of the damages sustained. Persons living on the rents of their own houses were also exempted from this tax.

The subject of amending the law relating to the administration of religious endowments came under consideration during the year in connexion with some petitions submitted by certain Hindoo gentlemen in Cuttack, urging the necessity of providing for the exercise of a proper control in such endowments, on the ground that the revenues in many cases were squandered by those entrusted with their management, and used for purposes other than those for which the grants had been originally made. But the Government of India expressed its unwillingness to proceed at once to legislate without more distinct evidence on the actual state of the several endowments, and a committee of three native gentlemen was accordingly appointed at the close of the year to inquire into the general condition of religious endowments in Cuttack. A proposal was also made to extend Act XX. of 1863, to Assam, to remedy the evils affecting similar institutions in that province. This proposal was under consideration pending a reference made on this point, awaiting at the same time the submission of detailed information as to their nature in this part of the country.

Another important subject bearing on the condition of the involved Peshkush estates in Cuttack came under the consideration of Government, but since nothing could be done in the interests of the zemindars which could tend to the benefit of their tenantry, the Government of the Lower Provinces of Bengal under concurrence of the Government of India, and of the Secretary of State, determined not to interfere at all in the matter.

In consequence of a serious riot committed by certain persons from whom tolls had been levied by the Rajah of Munipore, measures were at once taken to put a stop to the exaction of illegal tolls in Silhet. At Cachar also a toll had been levied ever since its annexation, on all forest products exported from the district, the object of which was to obtain a revenue from that which was not otherwise taxed by the State. These tolls being considered objectionable as partaking of the character of transit duties, steps were taken to stop the system, and to make arrangements for levying the dues of Government on the *bonâ fide* products of its own forests only.

Financial.—A comparison of aggregate results is given in the margin, the estimated surplus for the last year being 1,977,143*l.*, and 671,669*l.* in excess of the actual surplus in 1866–67, and 1865–66 respectively. By adding, however, one-eleventh to that for 1866–67, which embraced only a period of 11 months, for the purpose of obtaining a more just comparison, the excess surplus for 1867–68 will be reduced to 1,136,088*l.*

	1865–66.	1866–67.	1867–68.
	£	£	£
Revenue - -	15,946,097	14,286,789	16,625,672
Expenditure -	5,389,019	5,035,184	5,396,925
Surplus -	10,557,078	9,251,605	11,228,647

The transactions of the currency department in the circulation of notes showed a marked increase in receipts to the extent of 82,368*l.*, and in issues of 146,046*l.* over 1866–67. The stock of notes in the several treasuries at the close of 1867–68, was 190,471*l.* against 172,957*l.* at the end of the preceding year. By the arrangements hitherto in force, the public had been supplied with currency notes in every district freely on demand. But as in many districts Government notes were largely employed solely for purposes of remittance to Calcutta, it followed that Government by receiving silver in exchange for the same was undertaking the cost of these remittances without an equivalent advantage. With a view to discouraging this practice, instructions have been issued to pay notes freely to persons having demands on Government, but not to give them in exchange for cash at surplus treasuries.

The total number of money order offices in the Lower Provinces at the close of the past year was 180, of which 114 were opened in 1867. The excess of payments over issues, as shown in the marginal statement, is explained as having been caused by payments being made by the offices in this Presidency (chiefly in Calcutta) on account of orders issued by other circles.

	1866–67.	1867–68.
Number of orders issued	36,638	44,228
Amount - - £	194,994	266,667
Commission realized £	2,113	2,960
Number of orders paid -	36,543	54,354
Amount - - £	196,624	316,532

Further facilities afforded to the tea planters, by the Government of India allowing them to make remittances by drafts on Government treasuries, will enable them to pay out to their agents from one local treasury the money which they draw from another.

Education. — The number of schools and colleges in the Lower Provinces increased from 2,908 to 3,411 in 1867–68; and that of pupils from 121,480 to 145,142; showing an increase of 503 schools and 23,662 pupils, or at the rate of 17 and 19 per cent. respectively. Besides the foregoing, there were 2,196 schools which received no aid from the State, though a considerable number of them were under the inspection of the Education Department. The pupils in these schools numbered 65,212, being 21,136 in excess of those in the preceding year; the schools had also increased by 963 in number. The aggregate expenditure of the department was 274,212*l.*, of which 108,270*l.* were obtained from local funds, and 165,942*l.* were contributed by the State. The rate of increase in the past year in the expenditure from both sources was 9·6 per cent. The average cost of each pupil to the State was 1*l.* 2*s.* 10*d.*, and less than in the preceding year by nearly three shillings. The receipts from fees during the same period increased by 5,967*l.*, and the surplus revenue which lapsed to the State after deducting the expenditure from these receipts amounted to 730*l.*

The number of candidates for the university entrance examinations was 1,507 against 1,350 of the previous year, and of these 814 were successful. Out of 1,259 candidates from Bengal, 658 passed; 302 of the successful candidates came from Government schools, 237 from private institutions receiving grants in aid, and 115 from unaided establishments. The number of undergraduate students on the rolls in Government colleges for general education increased from 688 in 1863–64 to 820 at the close of the past year. The total expenditure on their account was 26,090*l.*, and the cost per annum of each such student was 36*l.* 8*s.*

In the course of the year a proposal was submitted to Government for the appointment of an additional professor in the Presidency College, to give instruction in Latin and comparative grammar, for which subjects no provision had been made in the existing establishments. The Government of India disallowed any expenditure on this account from the general revenue, but suggested that the appointment should be made dependent on any increase being raised from special fees. The arrangements contemplated, however, had not been carried out, there having been no indication of any readiness to pay the necessary fees.

There does not appear to be any abatement in the desire for the promotion of female education; the attempt made to induce girls to attend the village patshalas for purposes of instruction have met with great success, and as many as 2,000 girls are reported to have attended these institutions.

At the repeated suggestions of Miss Carpenter, the Government of India has placed at the disposal of the local Government a sum of 1,200*l.* for a period of five years, to carry out the experiment of establishing a female normal school at Calcutta. Steps have also been taken towards carrying out a similar establishment on a smaller scale at Rampore Baulea, under the grant-in-aid rules, a native gentleman having offered to contribute annually a sum of 150*l.* for 10 years, provided the Government would sanction a grant-in-aid of 300*l.* per annum.

Several other important endowments have been made during the past year by private gentlemen. The late Mr. Williamson, of Assam, has bequeathed 10,000*l.* to Government for the promotion of education in that province, to be devoted generally to the diffusion of useful knowledge, and especially to instruction in industrial occupations among the natives of the district of Golaghat. A donation of 5,000*l.* has been made over by Baboo Doorga Churn Laha, of Calcutta, for the foundation of scholarships to be awarded on the results of the university examinations, and for certain stipendiary studentships in the Government schools and colleges in Calcutta and Hooghly. Another native gentleman, lately a pupil of the

Wards Institution at Calcutta, besides giving three monthly stipends for the encouragement of the aided girls' school at Baulea, has undertaken to endow the same by placing a certain sum for its benefit. A zemindar in the district of Bograh has also endowed the aided school at Serajgunge, and a Mahomedan gentleman has in like manner endowed the school at the village in which he resides.

The number of grant-in-aid institutions had increased a little more than 9·50 per cent. over that in 1866–67, while the amount of grants had risen 23 per cent., and the number of pupils about 16 per cent.

Public Works.—The expenditure on account of public works in the Lower Provinces exceeded a million pounds sterling, being considerably larger than in the preceding year. It may thus be classified :—

	£
By the regular Public Works establishments - -	801,856
By civil officers in purchase of land for East India Irrigation and Canal Company in Cuttack - - -	11,582
By local establishments organized like the regular establishments - - - - - -	103,008
And by civil officers - - - - -	90,652
Total - -	£1,007,098

The heaviest expenditure was under the head of "communications," and was disbursed upon the great trunk lines of road; it amounted to 410,000*l.* Civil buildings cost 164,000*l.*, and military buildings including repairs 134,000*l.*, setting aside the sums of money granted for special purposes, such as military and special agriculture; the expenditure during the year on other works very nearly came to the sum allotted under the budget for the year.

The great Ganges flood, which occurred early in September 1867, destroyed all the roads within its reach. Bridges were washed away, and road embankments breached everywhere. A special grant was at once made from the Imperial funds for the restoration of the roads injured, and the greater part of the damage done was made good.

The execution of the Calcutta waterworks has till lately been carried on by the municipality without any control on the part of Government, but by an arrangement proposed by the Governor-General of India in Council, and assented to by the municipality, the justices consented to consult the Government on all important questions connected with the working of their arrangements with the contractors, and to agree to nothing that might increase the cost of the works without the approval of Government.

The terms and conditions of contracts were much under consideration during the year, and several alterations were made with the view of putting the arrangements on an improved footing.

Difficulties in regard to establishments were much felt during the past year; the departure of an unusual number of officers on sick leave, together with the formation of new districts, having affected and retarded the prosecution of works in the Lower Provinces of Bengal.

With reference to the operations of the East India Irrigation and Canal Company in Cuttack, a loan of 120,000*l.* was made to the company at the beginning of the year, to enable it to prosecute certain works which it was unable to carry out from want of funds, and which would at the same time assist in giving employment to the people in distressed districts. An Act to regulate the distribution and collection of water-rates for the company's canals was also passed during the year, and proposals to lease the water-rates in Cuttack on a system of graduated leases were approved.

The following appointments have been authorized by the Government of India.—A chief engineer and joint secretary for irrigation works in the Lower Provinces of Bengal has been authorized, an additional superintending engineer in lieu of the consulting engineer for irrigation works for the four embankment divisions, six temporary assistant engineers for the relief works in Cuttack, and four additional assistant engineers for the construction of the new military barracks at different stations. The office of architect to the local Government has been abolished, and a general revision of this department by its division into eight instead of six circles, and the formation of additional divisions, have been sanctioned.

Emigration.—The total number of emigrants despatched to the different colonies was 10,175 in 1866–67, and 5,154 in 1867–68, of which 313 were sent to the Mauritius, 3,061 to British Guiana, and 1,840 to Trinidad; there was no emigration to Jamaica and St. Vincent, as in the previous year. The prospects of the colony of Mauritius were understood to be improving at the close of the past year, and it was expected that the requisitions for field labourers for that island would increase; its proximity to India rendered service in it very popular among the labouring classes. The requirements of the Government of British Guiana had not been fully met owing to the rise in the rates of freight caused by the Abyssinian expedition. When ships became procurable there was great difficulty in obtaining the number of labourers required, the abundance of grain and other crops having afforded full employment to the labouring classes during the interval. Similar causes operated against the engagement of emigrants for Jamaica.

The total number of emigrants who returned was 1,797 from the Mauritius, 322 from Réunion, and 397 from British Guiana. The savings brought by the emigrants from British Guiana alone amounted to 10,654*l.* 15*s.*, and the number of depositors to 371; giving an average saving of over 31*l.* to each depositor, exclusive of the remittances made through local banks, and the sums brought in coin and jewellery.

The sanitary condition of the depôts had been satisfactory, and the health of the emigrants good. Of 3,570 individuals admitted into the British Guiana depôt, 44 died, of whom 17 died from cholera, which did not fortunately assume an epidemic form. In the Trinidad depôt 18 died out of 2,299 admitted. The rate of mortality among returned emigrants from Mauritius, was 1·89; from Réunion, 0·62; and from British Guiana, 2·01 per cent.

Considerable damage was done to the depôts by the cyclone of November 1867; but there was no loss of life, and the inconvenience experienced was but slight and temporary.

Emigration to Assam, Cachar, and Sylhet, under the Labour Act, decreased during the last year by 3,554. The total number at the depôts in Calcutta amounted to 9,681 souls, out of which 8,933 were despatched to the tea districts in the following proportions,—2,902 to Assam, 5,929 to Cachar, and 102 to Sylhet; out of the whole lot only 26 absconded; the per-centage of females to males was 78·7; but among those sent to Sylhet the per-centage was 110·84. The total per-centage of mortality in depôts was 2·58 as compared with 4·23 during the preceding year, while that from cholera was also less, being ·73 against 1·01 in 1866–67. The decrease in depôts was ascribed to the following causes: (1), the diminution in the number of coolies received; (2), the efficient management of the depôts; (3), the greater care taken in recruitment; (4), improved state of the population in their own country.

According to a return of imported labourers in the tea districts there were 57,651 employed in 1867, of whom 1,914 were transferred under sect. 6 of Act VI. of 1865, 12,365 were released from engagements from various causes, or transferred to other districts, 3,928 died during the year, 2,014 deserted, and 143 were imprisoned; thus leaving 37,283 employed in the cultivation of tea at the close of 1867. It has always been asserted by the planters that the main cause for the great mortality among emigrants sent to Assam and Cachar was that the labourers were unsuited to the climate and to the work expected of them. To remove this source of dissatisfaction medical inspectors have been authorized to exercise greater latitude in their selection of coolies, and are now permitted to reject all whom they conscientiously believe to be unfitted, from their physical constitution, to proceed to the tea districts for the purpose of labouring.

Military.—The cantonment rules which came into operation in all military cantonments in Bengal during 1866–67 have been extended to Cuttack, in communication with the Madras Government, whose troops were located in that cantonment. The joint-magistrate of Cuttack has been appointed to exercise the judicial functions of cantonment magistrate, the executive duties being performed by the station staff, or some other officer in cantonment, under the orders of the Government of Madras. The officer commanding the troops will perform the functions of cantonment committee.

Seven lock hospitals have been established at various cantonments, the cost of maintaining them being borne by the cantonment funds.

During the past year the question of local taxation in cantonments was considered with special reference to the liability of the military class to pay municipal taxes, and to the expediency of introducing an octroi tax into cantonments. But at its close the matter had not been decided by the Government of India.

Sites for the establishment of cholera camps have been taken up in the vicinity of the military stations at Dum-Dum, Barrackpore, Chinsurah, Berhampore, and Hazareebaugh, and provision made for the due protection of the graves of such soldiers who may be buried near these camps. Measures have also been taken for the apprehension of deserters from the army, owing to their increase from the facilities afforded for escape by means of railways and steamboats.

The total strength of the Bengal army on the 31st March 1868 was 79,945, of which 34,187 were Europeans and 45,758 were natives. The per-centage of mortality to average strength was about 2 · 81 among the Europeans, and 1 · 39 among native soldiers.

Political.—An arrangement has been effected for a systematic visitation of the frontier between British and Nepalese territory by the British resident, in conjunction with a Nepalese officer of rank and efficiency, with a view to inquire into all cases of importance which might be pending between the two States, and district officers on the British side have been directed to accompany the resident along their respective frontiers, in order to facilitate the solution of such cases as may come up for decision.

It having been brought to notice by the resident at Khatmandoo that a large number of British subjects had been sold into servitude in Nepal, principally young persons of both sexes, who had been disposed of by their parents and relatives, Maharajah Jung Bahadoor liberated and sent back into the British provinces as many as could be discovered among his people, and measures were taken by the British authorities to receive charge of and restore them to their homes. Some however, especially females, who were unwilling to sever the connexions they had formed, were allowed to return. From an inquiry instituted at the time into the growth of this traffic, it appeared that the authorities were powerless in the matter, from the fact that the sales did not take place on the British side of the frontier, while there was no prohibition against people crossing the border. The increase in this traffic was principally attributed to the scarcity that prevailed in the districts of Tirhoot and Chumparun, which induced parents to sell their offspring, with a view as much to relieve themselves as to procure a home for their children. Steps have been taken to put down the traffic, in which the Government of Nepal has been asked to assist.

The extension of the extradition treaties with Nepal, so as to embrace cases of culpable homicide and cattle-lifting, has been sanctioned by Her Majesty's Government and arrangements have been made by which the Nepalese Durbar agree to accept documentary evidence in such cases.

The rights and privileges of the Rajahs of Bijnee and Sidlee, in the eastern and western Dooars, recently acquired from Bootan, having been inquired into, the Government of India have duly recognized their claims as zemindars entitled to a settlement of their estates which they had heretofore managed and possessed under the Government of Bootan. The claims of other zemindars have not yet been inquired into.

A very interesting report was received during the past year on the trade of the Dooars. The productions disposed of by the people consist of cattle, rice, indian corn, and madder; and the products consumed locally are chiefly wheat, barley, pyoh, &c. The former staples are generally exchanged with traders from Thibet, or sent into Darjeeling. The external trade from Thibet has increased very considerably since the occupation of the country by the British; no cesses being levied on traders, the Dooars are visited by a large class who have abandoned the route *viâ* Sikhim. The supplies brought by these traders consist of sheep, ponies, wax, soda, blankets, tea, &c., in exchange for rice, tobacco, indigo, and madder, and, in a smaller degree, cloth and cotton. From the direction of Bootan traders bring mules, brocades, and silk, and take back cloth and cotton. Serviceable roads already exist, but with the view of affording greater facilities it has been proposed to extend the road along the banks of the Teesta so as to bring it within easy distance of the frontier of Thibet. The principal vegetable products of the Dooars consist of indian

rubber, lac, madder, a bark which makes coarse paper, soap-nuts, turmeric, and a variety of plants, &c., furnishing dyes, fibres for ropes, &c. The chief fruits are oranges, lemons, citron, guavas, plantains, walnuts, pine-apples, raspberries, peaches, grapes, and pummeloes. The vegetables consist of turnips, pumpkins, and tomatos; all the English roots which have been introduced have thriven excellently, and potatoes of the finest quality have been grown by Nepalese immigrants. The minerals to be found are copper, and lime of excellent quality.

The allowance granted to the Sikkim Durbar for the cession of Darjeeling, stopped in 1850, in consequence of the detention of two European subjects by him, was restored as an act of grace in May 1862. Repeated applications since then for an increase of allowance were not entertained, inasmuch as the cost of the establishment at Darjeeling was only just met by the revenue derived from the Morung, but under the circumstances that the receipts are now double what they were in 1850, and the fact that Darjeeling is increasing daily in importance, the Government of India have proposed to extend the Rajah's allowance from 600*l.* to 900*l.* a year.

A daring raid by an unknown tribe of Nagas on a police outpost about a day's march to the south-east of Seebsagur in Assam, resulted in the death of three constables, two women, and three children. The sentry on duty was killed, and the guard, taken by surprise, at first fled, but afterwards rallying, opened fire on the enemy, and checked the Nagas in their work of spoliation; but they effected their escape, the difficulty of getting food and carriage prevented their being pursued. The perpetrators of this outrage had not been traced up to the close of the past year. Two further attempts on the same outposts were subsequently made by the same tribe, who, on the latter occasion set fire to a village, but on the appearance of the police were soon put to flight. Various causes were assigned for the aggression, but the exact nature of the provocation which had given rise to these raids had not yet been ascertained. Under the circumstances the Government of India ordered that, in the first instance, endeavour should be made to obtain definite information as to the tribe or tribes really concerned in the affair, and that then an expedition should be at once sent up against them, with military assistance if necessary, as it was most desirable that crimes of this nature should be promptly punished. In the meantime to prevent the Naga tribes from entering British territory, and thus induce them to give up the real culprits all the passes have been blockaded. A reconstruction of the frontier posts in a solid manner has been also authorized. Subsequently a force, consisting of 50 constables, with officers, and headed by the deputy commissioner of the Naga Hills, was despatched, in February 1868, against the village of Razepemah, whither a party of Angami Nagas, who had committed a raid in the previous year, had been traced; the village was reached unopposed, but the Nagas escaped while the defences were being cut through, and the only thing that could be done was to destroy the village. Further search was discontinued in the interior, but rewards were offered for the capture of the principal guilty parties. Measures were also taken to prevent the re-establishment of the village in question, or the occupation of any of the culturable lands attached to it; but such of the villagers who had not been concerned in the raid were permitted to settle in other villages. Subsequently a deputation came to sue for pardon, which was granted; the Razepemah people might disperse themselves among such villages as were not under British control without fear of molestation, but if any such villages came under British control hereafter no distinction would be made to their prejudice, with reference to their misdeeds between such settlers from Razepemah and the other inhabitants. At the suggestion of the local officers a system of giving passes to all Angami Nagas visiting the plains of Assam has been introduced as an experimental measure. This will bring the authorities in direct contact with the trading parties from the Naga country, and enable them to obtain correct information in regard to the traffic carried on by the latter, and in case of outrages will lead to the immediate identification of the parties concerned.

During the year 1867–68 the hill tracts of Chittagong enjoyed a perfect immunity from the attacks of the Border tribes, no raid of any sort having been attempted. At the usual annual Kookie meeting which took place in December 1867, attended by 17 chiefs and about 150 of their followers, the customary presents were given, and the chiefs expressed themselves well pleased with their reception and hospitality shown.

Engagements have been entered into with the Kookie chiefs of the Howlong and Syloo tribes, by which the latter bind themselves among these tribes to abstain from committing any more raids on British subjects in consideration of their receiving a sum of money amounting to 340*l.* in the aggregate.

The practice of smuggling fire-arms into the Cossyah and Jynteah Hills by means of native traders having been brought to the notice of Government, the local authority was instructed to require the chiefs to abstain, and to compel their subjects to abstain from introducing arms and ammunition into their own territory on pain of incurring the displeasure of the British Government, and it was ordered that such as were allowed to carry arms should do so under license.

With the exception of the estate of Keunjur, the administration of the tributary mehals of Cuttack was conducted in peace and quiet during 1867-68; the affairs of this estate at one time gave cause for considerable anxiety, arising from the right of succeeding to the management of his estates being granted to Dhurrunjoy Bhunj, son of the late Rajah of Keunjur, on his coming of age. The announcement of Dhurrunjoy's succession was the signal for a strong outbreak of opposition on the part of the childless ranee of the late rajah, who supported the claims of Brindabun Chunder Bhunj, whom it was asserted her husband had adopted. She was supported by the hill tribes subordinate to Keunjur, who apparently were devotedly attached to her person. It was carefully explained to the chiefs who came in deputation to Calcutta to represent their case why the Government could not recognize a fictitious adoption such as that of Brindabun Chunder Bhunj. At the same time they were assured that no oppressive measures would be practised on them by the young rajah or his advisers. Matters continued thus in a very unsettled state, and it was not till the superintendent of these mehals had been aided by the presence of the commissioner of Chota Nagpore, who brought with him the brother of the ex-ranee of Keunjur, that the negociations assumed any favourable turn, and the large gatherings of the hill men in the forests began to listen to reason. Ultimately, however, the ranee withdrew her factious opposition; a proper settlement was made for her support, and the hill tribes united with the rest of the Keunjur people in recognizing Dhurrunjoy as their Rajah.

The late Rajah of Mohurbunj died previously to the Keunjur difficulties, and was succeeded by his nephew Kishen Chunder Bhunj, who has since been recognized by Government. The claimant (Brindabun Chunder Bhunj) to the Keunjur raj was the younger brother of the present rajah of Mohurbunj, who loyally assisted in the settlement of Keunjur without showing any inclination to support his brother's pretensions.

Medical.—The total number of in-patients treated in the Medical College Hospital fell from 5,654 to 5,014 in 1867. The death-rate among Christian patients decreased from 10·73 to 6·70 per cent., and among the native patients it fell from 30·86 to 21·68 per cent. in 1867. This decrease was attributed mainly to the improved sanitary measures introduced during the latter year, especially to the reduction in the numbers allotted to each ward, to the greater care bestowed upon good conservancy, and to the free use of deodorants and disinfectants. A corresponding decrease has to be noticed in the number of patients treated in the medical and surgical out-door dispensaries, 35,892 and 35,232 in the years 1866 and 1867 respectively. In the Calcutta Native Hospital also there has been a considerable falling off in the number of both in and out patients treated, being 172,067 against 176,381 in the preceding year; the daily average of in-patients in 1867 was 72·7 against 78·8 per cent. in 1866, and the result of their treatment showed a per-centage of 16·7 deaths as compared with 24·06 in the previous year. In the Calcutta branch dispensaries 253,331 persons had been medically treated giving a daily average of 693. An additional hospital has been opened in the northern suburbs of Calcutta for the reception and treatment of in-door patients in that part of the Presidency town, the want of which had been much felt. Upwards of a thousand persons had been admitted into it during the first year of its existence. A river-side dispensary has also been determined on for the treatment of sick sailors.

In the 130 Government charitable hospitals and dispensaries throughout Bengal, 335,949 patients were treated during 1867 as compared with 305,080 in 1866, and the per-centage of mortality among in-patients fell from 29·42 to 18·09. Four new dispensaries were established during the past year. With a view to obviate the evils arising from branch dispensaries in various parts being

placed under charge of native doctors beyond the reach of efficient control, it has been ordered in future that the civil surgeon shall visit every such dispensary of the district at least twice in each year, and remain not less than two days in order to make a thorough inspection.

The result of Vaccine operations showed that the number of cases in 1867 was 198,114 against 194,105 in the preceding year. Out of these 176,616 had been successful, while in 1866 the number was 164,388. A code of rules prescribing the measures to be taken on the outbreak of small-pox in towns or large villages has been circulated for the guidance of local officers, with a request that they will give effect to the same in so far as the existing laws and local usages will permit. Adopting the practice in Madras of circulating treatises on vaccination in the vernacular language, the Superintendent-General of Vaccination in the North-west Provinces has prepared a treatise on the subject which has been translated into Bengalee, and circulated, both for the guidance of those engaged in the work, and for the information of the people at large.

In consequence of the prevalence of yellow fever at the Mauritius, steps were taken at the ports of Calcutta, Canning, Chittagong, and Akyab, to enforce quarantine in the case of vessels which had fever on board. These arrangements continued from June to August 1867, when the disease was reported to have abated.

Municipal.—The total income available for municipal purposes in Calcutta in 1867 amounted to 366,217*l.*, including a sum of 50,000*l.* raised on loan; and the expenditure came to 257,318*l.*, leaving a balance remaining at the close of the year of 108,899*l.* From this amount, however, 12,643*l.* have to be set aside for interest due to holders of debentures not drawn within the year, and a sum of 51,286*l.* required for the completion of works commenced in previous years; the net balance will therefore be 44,970*l.* The revision of the assessment of the towns having been completed during the past year, has led to a gain amounting to 20,700*l.* per annum.

The most important work under construction by the municipality is that for the water-supply of Calcutta. All the land required on the various pumping stations and elsewhere has been obtained and made over to the contractors. The progress has been satisfactory, and it is expected that by pushing on the works with vigour, they may be finished by the close of 1869. The drainage works of the capital, which are confined to a certain area, are reported to be executed at rates much below those provided in the original estimate; the work done embraces a length of 35,623 lineal feet of sewers, in addition to work connected with silt pits, engine house, and experimental reclamation of a square mile of land taken at the Salt Water Lake. 352 additional gas lamps have been put up, making the total number of gas lights 2,029. During the past year the Act came into operation providing for the payment of the cost of the Calcutta police by an annual rate on the assessed value of all houses, buildings, and lands in the capital. This rate has been fixed by the justices at 3 per cent., which it is thought will cover more than three-fourths of the entire estimated cost of the police, the other one-fourth being paid by the Government.

Forests.—The temperate forests which have been reserved on the side of British Sikhim are estimated to cover an area of about 15 square miles, besides which there is a forest called Goom Pehar covering an area of about 12 square miles, which is in the hands of the Darjeeling municipality. To these should be added a small forest of about two square miles, extending southwards from the aforesaid and covering part of the Nagri Spur adjoining the Nepal frontier; but this forest is inaccessible for the extraction of timber, and very distant from any market. On the Bootan side of the Teesta the temperate forests above Dalimkote have not yet been explored, being at present inaccessible from want of paths, and so situated that their produce could scarcely be expected to pay the cost of working.

The tropical forests, consisting chiefly of sal timber, have been worked to such an extent that timber of five feet and above in girth is only to be found in places where the expenses of cutting can scarcely be covered by the sale. There are plenty of young trees, but they will require 30 or 40 years growth before they can be valuable for felling. The estimated area is stated to be about 59 square miles. The sal forests on the outer hills and immediately above the Terai are very fine, but only a limited quantity remain fit for the axe, estimated to be able to furnish some 40,000 to 50,000 sleepers. The

richest sal forests in British Sikhim are to be found in the Teesta and Great Runjeet valleys, but the difficulties attending the extraction of timber are very great, owing to the nature of the Teesta river, which flows like a mountain torrent and prevents floating operations except in the dry weather, when the rocks form dangerous rapids. Though some of these boulders were blasted and broken up last season, facilities for operations could not be carried on to any great extent, on account of the specific gravity of the sal which prevented its floating.

Besides these reserved forests, are several not under the control of the Forest Department in which the felling of timber has been carried on to any extent, it is under consideration to place these under a system of conservancy. On the Bootan side, in the Western Dooars, the tropical forests are better stocked than in British Sikhim, but many of them require to be closed for years owing to the extraction of timber having been far beyond the natural powers of the forests. Their estimated area was about 100 square miles.

The financial results of the operations of the Forest Department give an estimated profit of 6,605*l.*, but to this should be added the value of the timber in hand, which has not been rendered, otherwise the profit would have been much larger.

Agriculture.—Tea planting continues to be a very important branch of industry in Assam, but a great difficulty exists in getting anything like reliable returns from the planters as to cultivation. While some of the factories have been closed, no garden worth keeping up has been abandoned; those that have been deserted were chiefly new ones formed for purposes of speculation, and the closing of them may be considered rather an advantage than otherwise to the interests of *bonâ fide* tea planting. Only three applications had been made for the sale of waste lands during the past year, and in each case the land realized its upset price. Waste lands, amounting to 271,134 acres, obtained under the late rules, were resigned by the purchasers, in addition to which considerable resignation of lands, held under rent-paying pottahs which had been taken up for tea, also took place.

The amount of labour imported into Assam was much less than in prior years, owing in a great measure to proprietors of tea gardens not possessing the requisite funds to meet the cost of importation. Local labour was still in great demand and continued to command the high ratio of previous years.

The same difficulty existed in Cachar with regard to reliable returns from the managers of tea plantations. The total area taken up for the cultivation was assumed at 280,678 acres. Out of this the survey shows an area of 29,160 acres actually under cultivation, but deducting the gardens given up as unprofitable, it was assumed that there were 25,500 acres planted with tea. The total out-turn of the entire district was calculated at 3,163,310 lbs., and the estimated out-turn for the following year, 1868–69, at 4,659,862 lbs. The average price of Cachar tea was higher than in the year preceding, with every prospect of a further rise in consequence of the marked improvement in the system of manufacture.

The quantity of land held by the planters in Sylhet is about 29,000 acres, of which, about 21,400 acres are Government waste lands, the rest being held from zemindars, or on ordinary cultivation leases. The area under tea culture rose from 2,210 acres in 1866–67 to 2,458 acres in 1867–68, but was still less than in the three antecedent years; the out-turn of tea amounted to about 173,000 lbs. against 169,600 lbs. in 1866–67. Two noticeable features in this district were, the cessation almost entirely of the trade in tea seed, and the fact that local labour had been found far less profitable than that imported.

In Dacca there were only two experimental gardens, both in the hands of native proprietors, and expected to produce good tea.

Of 20 estates in Goalpara only two were in the hands of Europeans. The area under cultivation had not been increased since 1866, but the out-turn of tea was estimated at about 5,170 lbs. as against 4,914 in the previous year.

There has been no extension of tea cultivation in Chittagong, and one plantation in the hill tracts has been abandoned. In other respects the results of the past year are reported as favourable, and some of the gardens have come into good bearing. This has caused the want of labour to be felt, and some of the planters have asked for the introduction of the Labour Transport Act.

The aggregate quantity of tea exported from Calcutta during 1867–68 was 8,789,344 lbs. against 7,155,232 lbs. in the previous year, showing an increase of 1,634,112 lbs.

The cultivation of cinchona at Darjeeling has been attended with the most successful results, and the number of plants propagated during the past year far exceeded that of any previous year. The total number of plants, cuttings, and seedlings amounted to 1,558,878 in Government plantations. The quantity of plants possessed by private companies and individuals was estimated at about 600,000, and the area covered about 170 acres.

In consequence of the success attending the experimental cultivation of Hingughat cotton in the Nemaur district of the Central Provinces many applications have been received for the seed, a large quantity has been distributed according to requirements, and experimental cultivations have been established in 24 districts of the Lower Provinces of Bengal.

At the suggestion of the Government of India, Dr. McLeod, civil assistant surgeon of Jessore, was entrusted with the preparation of, and submitted a manual possessing all the information in regard to diseases among the cattle, in plain and unscientific language, with appendices giving a statement of the nature, symptoms, and treatment of the diseases, and a list of the best medicines applicable in each case; the work was in course of translation into Bengalee for circulation among the agricultural classes of the people. The districts in which cattle disease of a severe type broke out during the past year were Durrung in Assam, and Nuddea. Two hundred copies of a Bengalee translation of Dr. Bensley's instructions for the treatment of cattle murrain were sent to the Commissioner of Assam for circulation among the people in Durrung. The reports on cattle diseases in India having since been communicated to the Veterinary Department at Her Majesty's Privy Council Office, Professor Simonds suggested that the contents of the natural cow-pox should be transmitted to England, secured in glasses or tubes, hermetically sealed for examination, with a view to securing primary vaccine lymph. It was subsequently pointed out that the cattle small-pox occurred in that part of India epidemically, and was very fatal and highly contagious; the transmission of the matter taken from cattle suffering from this disease might therefore lead to recurrence of the plague in England. This representation had been submitted for the consideration of Her Majesty's Government.

Mines.—The Government of India ordered a general examination of the coal tracts in the Cossyah and Garrow Hills in connexion with the proposed extension of the Eastern Bengal Railway to Assam; but the inquiry did not tend to confirm the expectations formed of the richness of the coal fields. A company, however, has been formed, who intend commencing operations in the direction of Lakadong, and a slip of land, reaching from that place and Barr Ghat, along the banks of the Hurru river, had been granted by Government subject to the approval of the local authorities.

North-West Provinces.

Physical Outline.—The North-West Provinces form an irregular semicircular belt, watered by the Jumna and Ganges; having the Lower Provinces on the east, the Punjab and Rajpootana on the west, and the Indore Agency on the south. The northern extremity of the western part, rises up to the snowy summits of the Himalaya mountains; and includes Kumaon and Gurwhal, which abut on Tibet in the Chinese Empire. Kumaon also forms the western limit of the State of Nepaul. The remainder of the northern frontier encircles three sides of the British Government of Oude, the fourth being bounded by Nepaul, which then becomes the northern boundary of the eastern part of the North-West Provinces. In latitude, the North-West Provinces lie between 23° 51′ and 31° 7′ north, and in longitude, between 77° 4′ and 84° 40′ east of Greenwich. This government includes eight British provinces or divisions, named for the most part after their chief towns, as follows:—Agra, Ajmere, Allahabad, Benares, Jhansi, Kumaon, Meerut, and Rohilcund; also, the native states of Gurwhal and Rampore. Ajmere, is detached from the other provinces, being situated in the midst of Rajpootana. The North-West Provinces are under a Lieutenant-Governor, subordinate to the Governor-General of India. Of the eight British provinces, five are "regulation;" but Ajmere, Jhansi, and Kumaon, are "non-regulation." Each province is under a commissioner, and the eight are divided into 36 districts, each of which is under a magistrate-collector, subordinate to the Commissioner of

the province. The magistrate-collectors superintend 445 subdivisions for judicial and revenue purposes.

Area and Population.—The total area according to the latest information is 76,796 square miles, exclusive of Lakhiraj or rent-free lands amounting to 6,894 square miles. The whole surface contains upwards of 92,000 townships or villages, and supports a population of 30,016,137, without taking into consideration the number of the military (56,317), or of those employed on the railway (14,444), thus giving a population of about 359 to the square mile. In England and Wales the density is given at 344, and for the whole of Great Britain at 259 to the square mile. Taking the international measure, the density of the population of these provinces as compared with Great Britain and certain other parts of Europe, shows it to be one of the highest on record. Benares is the most thickly peopled district, the density standing at 797 to the square mile. Jounpore and Ghazeepore stand next. At Agra the density of the district is 549; the districts of Allahabad, Cawnpore, Bareilly, and Meerut are nearly equal, ranging from 501 to 507. The most thinly populated districts are Gurwhal 45 to the square mile, and Kumaon 64 to the square mile. Looking to the population classified according to caste or religion, upwards of 25,000,000 are Hindoos, and a little more than 4,000,000 Mohamedans. Christians only number 30,523, other sects amount to 371,626. Of the whole population, nearly 18,000,000 form the agricultural class, and about 12,000,000 are non-agricultural. The proportion of the sexes seems to be much opposed to European experience. In all the countries of Europe the number of females has always been considered as in excess of the males, except in Italy and Belgium, where they are nearly equal. In the North-Western Provinces, the number of females born to every 100 males is 86·08 per cent., as compared with 105 per cent. in Sweden and the Netherlands respectively, 104 per cent. in England and Norway, 101 per cent. in Prussia and Spain, 100 per cent. in France, and 99 per cent. in Italy and Belgium. This great difference is traceable primarily to climate, and is supported by physiological facts. It may thus be inferred that in northern climes there is an excess of females, in more temperate regions the proportion is equal, and in warm countries the excess is on the part of the males. Another important cause may be the relative age of the parents. In England according to the census of 1861, the husband is on an average only two and a half years older than the wife. In France men marry later, while women marry as early as in England. In India the difference of age between the husband and the wife averages more than six or seven years. A third cause exists in the social customs of the country. The intense desire of natives of India on religious grounds is to obtain a son, who is brought up with a care rarely shown to girls. The girl is exposed to chances productive of greater female mortality, being married the moment she attains the age of puberty, having children at 11 and 12, she is subject to a sedentary and listless life in the Zenana, or one of hardship in the field, and is too often treated oppressively as a widow. Some allowance must be made also for the existence of infanticide, and for the sufferings women are liable to from such causes as famine, and war, though these evils under British rule are not so great as in former days. This solution has been borne out by the fact that among Mussulmans, who marry wives nearer their own age than do the Hindoos, the proportion of female births is greater.

—	To square kilometers.
Britain - - -	100·24
England and Wales -	122·72
North-West Provinces	139·30
Belgium - - -	147·40
Saxony - - -	130·03
Holland - - -	93·63
Wurtemburg - -	90·23
France - - -	67·81

Political Relations.—There are several native chiefs in the North-West Provinces, of whom the principle is the Nawab of Rampore, whose estate or jageer covers an area of about 890 square miles with a population of 485,000, and whose gross revenue is about 100,000*l.* He is about 34 years of age, has been privately educated, and knows the English language. He possesses criminal and civil powers within his own territory, and keeps up a military force of 1,700 men.

The Rajah of Benares also holds a prominent position; he is a Brahmin of about 49 years of age. The zemindaree of the province of Benares, which consists of several districts, was bestowed on Rajah Mohess Narain Singh, a grandson of Bulwunt Singh, on the rebellion of Cheyt Singh in 1771, for a stipulated payment of 400,000*l.* In 1794 it was decided to introduce the regulations of the Bengal pre-

sidency into the province of Benares, and an agreement was accordingly made with the then Rajah, under which the present Rajah now holds. The right of adoption was granted to the Maharajah by the Government of India in 1861, and he is also entitled to a salute of 13 guns.

The Rajah Luchman Singh, the present incumbent of Shahpoora, is the only chief of Ajmere who governs his own territories. He is descended from Suraj Mull, a younger son of the Rajah of Oodeypore. Suraj Mull received as his portion the pergunnah of Khyrar in Meywar, and his son also obtained from the Emperor Shah Jehan, of Delhi, in reward for gallant services, a grant of the pergunnah of Phoolia, out of the Khalsa crown lands of Ajmere, and founded the present town of Shahpoora. The British Government have conferred the title of Dheeraj on the present Rajah, who holds Khyrar under the sovereign of Oodeypore, and Shahpoora under the British Government, who granted him a sunnud in 1847, fixing his tribute at 1,000*l.* per annum. The present Rajah is quite young, only 24, possessing an annual income of 22,500*l.*, derived from the estate, which is hereditary.

There is also the Rajah Teekum Singh Bahadoor, in the Allyghur district. The first man of any note in this family was Nundram, who rose into power in the time of Aurungzebe, from whom he received the title of Foujdar. He died in 1695, leaving four sons, from the eldest of whom the Moorsaun family are descended, the present Rajah being his great-great grandson. The present incumbent has received the order of the Star of India of the third class; his annual income is about 7,000*l.*; he is not only employed in the management of his estates, but exercises the powers and duties of an honorary magistrate.

Next may be mentioned the Rajah Pirthee Singh Bahadoor, talookdar of Awa, in the Muttra district, whose income is about 12,500*l.* a year, partly derived from profits in the trade of indigo. Out of this income he pays to Government the sum of 3,500*l.* He is only 30 years of age, and is studying the English language. The original estate was founded by Thakoor Bukht Singh, great grandfather of the present Rajah, who 100 years ago acquired a talooka of 60 or 70 villages from the ruling power. The Thakoor sided with Lord Lake, and was in consequence permitted to retain the fort of Awa and its defences. The title of Rajah was first conferred on the Thakoor's grandson, Pitumbur Singh, in 1839, by Lord Auckland. The present Rajah showed conspicuous loyalty during the Mutiny of 1857, and received lands as reward for services.

The family of the Rajah of Pertab Singh, Bahadoor of Tajpore, was founded in the district of Bijnour upwards of a century ago by Bulram Singh, great grandfather of the present Rajah. Bulram Singh acquired the estate of Azimpore, and settled upon it. He and his son Ramkishen added to the property, and the latter bought the estate of Tajpore, where he settled. His son, Kidha Singh, further enlarged the family estates, and having rendered valuable services to the British Government on the first occupation of this province, received an estate in recognition of his services. The next incumbent, Jeeraj Singh, died young, and was succeeded by his son, the present Rajah. His income, about 15,000*l.* a year, is principally derived from his estates, out of which he has to pay to Government a revenue of 7,700*l.* per annum. He is also an honorary magistrate in the North-West Provinces, and received his title of Rajah in 1858, for good and loyal services rendered during the disturbances of the preceding year.

Rajah Shooraj Singh of Kasheepore is a descendant of the family which reigned in Kumaon until it was occupied by the Ghoorkas. At present he lives upon the income of his rent-free and zemindaree estates, estimated at about 7,500*l.* a year. He has been appointed a member of the Legislative Council of India, and received the order of the Star of India, 3rd class.

The Rajah Sir Deonarain Singh, Bahadoor K.C.S.I., of the family of Goutum Buns, but now called by the name of Asan Singh, claims descent from Nur Singh Deo, but the family records go back only to Murdan Sahi, who, about A.D. 1704, was sole talookdar of Anundpore or Derikho. His grandson, Asan Singh, was chief minister to Rajah Bulwunt Singh, and afterwards for a few years to Rajah Cheyt Singh. The former conferred upon him the Syudpore Bhitra estates, but in the disputes with the latter he rendered great services to the British Gonverment. Baboo Asan Singh was succeeded by Baboo Shiva Narain in 1801,

who was succeeded again by his son Hur Narain in 1830. Sir Deonarain Singh succeeded in 1846, and the title of Rao Bahadoor was conferred upon him in 1852. In recognition of his services during the late mutiny Her Majesty's Government granted him the title of Rajah Bahadoor, and a khillut of 1,000*l.*, with a perpetual grant to heirs male of 2,500*l.* out of the Syudpore Bhitra income. He also received in 1866 the order of the Star of India, 2nd class, as a mark of the further appreciation of his services. His total income is between 7,000*l.* and 8,000*l.* a year.

Rajah Mahindur Singh, of Bansee, is of the family of Soorujbuns of Ajoodhia, and has received the decoration of the Star of India, 3rd class. He is an honorary magistrate, and has an income of about 12,000*l.* a year. He is descended from Busdro Singh, the third son of Duleep Singh, who, with a considerable force and assisted by the Pithowra Rajah, came to Goruckpore, and after defeating the Doom Kuttar Chuttrees, took possession of the district. Busdro Singh was Rajah of Mughur, but on leaving his raj came to Bansee and settled there. The Government revenue of the ancestral estate is about 2,500*l.*, and that of the estate at Nagur assigned to him in reward for loyalty and good services during the troubles of 1857, is 2,357*l.* He is past 43 in age, and has a son.

In addition to the above there are some 40 other native chiefs of greater or less degree, many of whom behaved with equal loyalty during the insurrection of 1857, and for their good services have received recognition and favours from the British Government either by a gift of land or the decoration of the Star of India. Some are minors whose estates are managed under the Court of Wards, while a few are pensioners under Government.

The following information has been abstracted from the latest reports on administration of the respective departments in the north-west provinces.

	1866.	1867.
Regular Civil Courts -	78,673	69,134
Non-regulation „	16,197	12,274
Small Causes Courts -	11,051	9,973
Total - - -	105,921	91,381
Miscellaneous cases -	137,804	145,130
Total cases instituted -	243,725	236,511

Judicial.—In the administration of civil justice for the North-West Provinces, the total number of cases instituted in 1867 was less by 7,214 than in the previous year.

Litigation had, therefore, decreased considerably; the diminution in the regulation districts amounted to 9,539, and was ascribed to the action of the new stamp law. The class of cases most affected by its operation was that of suits for immovable property, since these cases most closely touch the most cherished interests of the people; and as the greater number of this description of suits are brought by the agricultural class who have little capital at command, the enforced stamp duty has evidently acted as a practical denial of justice to a large body of suitors who have hitherto resorted to the courts opened to them. This sudden check in litigation is the more striking when compared with the tendency to increase in past years. A natural apprehension had arisen that these very suitors who ought to have the readiest access to the courts, may possibly be driven to questionable means of enforcing their rights; and that the power of the richer classes over the poorer may also be greatly increased by the action of the law in question.

An important change has been made in the establishments of the district judges, by which members now receive better salaries, and are placed under the control of a highly paid and responsible official, who is the head ministerial officer of the court, thus relieving the judge of routine and office work. In some districts an experiment had been made of assigning to this official the duties of the clerk of the court in all courts.

The periodical visits of moonsiffs to out-stations, introduced in 1862, having proved to be of great inconvenience to pleaders and suitors, besides creating constant interruptions to business at head-quarters, have been discontinued, and the courts of the moonsiffs will be held at their appointed stations.

A considerable decrease appeared both in the number of criminal offences and in the cases for trial in 1867, as compared with the previous year; this decrease was nearly the same in bailable and non-bailable offences. The result of police investigations was, however, not so satisfactory, since the proportion of arrests effected to offences committed appears to have been small, arising from a want of detective ability shown by the police generally. On the other hand, special testimony was borne to the efficiency of the detective powers of the

railway police. This body consists of selected men; and there is every hope that the detective and preventive ability shown in it may be acquired by degrees by the general force.

The crime of kidnapping was found to be rife in the border pergunnahs of the Agra district. The attention of the Government of India was drawn to this evil, and energetic measures have been adopted through the Political Agents towards its suppression. The persons for whose benefit the trade was carried on reside in the neighbouring states of Gwalior and Dholpore, and consist of prostitutes who purchase female children for their own infamous purposes, of men of low caste who thus secure wives for themselves or procure them for others, and of fakeers who take boys in order to make them their disciples.

Education.—The strength of the Educational Department in these provinces was increased in 1867–68 by the appointment of an inspectress of female schools as an experiment, and three additional inspectors of various grades.

Local education committees had also been organized in every district, and were reported to be acting most usefully in many places. This was thought to be the one link required to bring the operations of this department into connection with the general administration, and with the people themselves. A steady increase in the per-centage of expenditure under the head of "Instruction" was noticeable last year, which was due to the growing proportion of local funds with this direct object, and to the enhancement of payments under the head of "Grants in aid."

A really good English school (missionary if not Government) is now available at the head-quarters of every district, where the population is deemed sufficient to justify its establishment.

The results of the Calcutta University examinations of the second and fourth year classes were most satisfactory during the past year, the number of candidates for examination in first in Arts and B.A., having increased from 12 to 25, out of which 16 passed against eight in the previous year.

On the 1st February 1868 a census was taken of all the boys actually present on that day at the district Government schools, which showed that there were 62,102 boys under, and 50,165 boys over, 12 years of age, making a total of 112,267. According to the census of 1865, the male population of these provinces was given at 16,089,902; after deducting 340,000 as the number in towns in which none of these schools were placed, there remained a male population of 15,749,902 affected by them, and the result showed that 14 in 2,000 of the male population were actually in a Government school on the day of the census, but of these 14 only one would be learning English. Again, taking the number of boys under 12 years of age at 5,970,138, according to the same census return of 1865, the result would show that one boy out of every 100 attended one of these schools, and that one boy out of every 2,500 was stated to have begun to learn English. According to a rough calculation, a Government school was given to every 11 square miles of cultivated area.

The number of private colleges and schools, and the attendance of pupils fell off last year, the decrease being chiefly among the lower class of unaided schools, but the aggregate expenditure increased from 55,318*l.* to 57,787*l.*, owing to the improved character of the instruction.

Revenue.—The past season is reported to have been a favourable one and the harvest good. In Rohilcund, Ajmere, and the western part of Kumaon, however, the rainfall was below the average, and in order to avoid impending misfortune, Government, on the recommendation of the commissioner, advanced 5,000*l.* for the purchase of grain wherewith to feed the poorer classes of the population. Food was placed within reach of the sick and the aged who could not travel to obtain it, and the able-bodied men worked for it; grain was paid for, either in money or by labour, and was never given gratis, except in extreme cases. By the excellent arrangements of the local authorities the emergency was fully met and suffering prevented, and the total expense to Government did not exceed 500*l.*

At the foot of the Kumaon hills exist two tracts worthy of notice as regards the progress made in them. The increase of population in the Bhawar tract cannot be calculated with any accuracy, as the people who cultivate in the plains also hold lands in the hills. They migrate up and down according to the agricultural necessities of the hills and plains, and in reality have four crops during the year.

The fact that the women and children who used to leave the Bhawar in April on account of its unhealthiness, now remain till June, while the men ascend to their villages only to visit their families and to look after their hill crops, may be taken as good evidence that the irrigation, and consequently extended cultivation, have greatly improved the climate. Prior to 1851 the revenue derived from this tract was about 800*l.*; it is now reported to exceed 6,000*l.*, and there is every prospect of considerable increase in future years from recently established villages, and new cultivation consequent on the completion of irrigation channels.

In the Chilkya tract the progress has been more rapid, because in it there are no old proprietary or water rights to interfere with the requisite improvements. In six years the revenue is said to have increased from 300*l.* to 2,000*l.* The cultivation of this tract, and the consequent improvement of its climate, are highly important, since the road to the new hill station of Raneekhet must pass through it before entering the hills at Ramnuggur. The credit of this remarkable change which promises a permanent improvement in the climate, occupation, and productiveness of the Bhawar, is entirely due to Colonel H. Ramsay, C.B., the Commissioner of Kumaon.

Of the total area of these provinces 13,320 square miles have been settled in perpetuity; 58,175 square miles for 30 years and upwards; 6,737 square miles for a shorter period; and 5,458 square miles are in progress of settlement. The total area assessed amounted to 49,150,995 acres, of which 24,177,161 were under cultivation during 1867–68, and the gross assessment amounted to 3,942,177*l.*; thus it will be found that the rate of assessment per acre on cultivation in these provinces was about 3*s.* 3*d.*; on cultivable land, about 10*s.* 4*d.*; and the rate per acre on total area of settlement, only about 1*s.* 7*d.*

The settlement operations in the North-West Provinces continued to show satisfactory progress. In eight of the districts settlement had been completed, in one of which, that of Goruckpore, an increase of between 70,000*l.* and 80,000*l.* had been secured to the land revenue, still leaving the demand very moderate even at the half asset standard. The standard of assessment was now stated to be 55 per cent. of the assets, of which 5 per cent. goes for cesses, while the remainder, after defraying village expenses, formed the profit of the proprietors. In 15 districts the settlement operations were in progress, and in 3 more, Etawah, Cawnpore, and Moradabad, as the present settlement expires, fresh operations will be commenced.

The instructions of Her Majesty's Government for the conclusion of a permanent settlement of the land revenue in all estates, where their resources have been sufficiently developed, are being carefully attended to. Nothing will be wanting on the part of the Government of these provinces and of its several settlement officers to carry out legally and thoroughly the principles laid down for their guidance. A liberal increase of salary has been awarded in the several grades of these officers, and due praise bestowed on the zeal and energy displayed by their labours. The completion of this great work upon which the future progress and prosperity of these provinces mainly depend is expected at an early date.

The estimated out-turn of the cotton crops was only 58,197,520 lbs., as compared with 83,050,400 lbs. in 1866–67, the decrease in this staple having been occasioned by the fall in the market price, and in many parts the crop was injured by the unusually late and heavy rain.

The total revenues realized, exclusive of forest and the increase derived from irrigation by canals, amounted to 5,689,974*l.* against 5,462,514*l.* in 1866–67.

Irrigation.—By the untimely death of Colonel Dyas, R.E., the administration of irrigation works suffered a grievous loss; this is the third chief engineer of irrigation, of these provinces, in succession, who, within the last seven years, has succumbed in the prime of life to the effects of climate, toil, and exposure, endured without sufficient break or relaxation. Possessed of high attainments and exclusively devoted to the duties of his profession, Colonel Dyas rendered the State the signal service of fostering by precept and example the application of exact science to every branch of irrigation, whereby he greatly advanced the engineering knowledge of such officers as served under him, and fitted them to design and execute the extension works which were then in contemplation or in actual course of construction. With the exception of the Agra irrigation works which were closed, the following

statement will exhibit the income and expenditure on reproductive irrigation in these provinces during 1867–68.

Capital expended by Government during 1867-68.	Receipts and Expenditure during 1867–68.				
	Gross Income.	Cost of Establishment.	Cost of Repairs.	Interest at 5 per cent. on Capital.	Net Deficit.
£	£	£	£	£	£
66,414	188,913	42,587	44,259	124,973	22,907

The total amount of capital expended in previous years amounted to 2,499,462*l.*, and the approximate number of acres cultivated during the past year was 743,115.

Forests.—The cash transactions of the past year, as compared within 1866-67, is given below:—

	Receipts.	Expenditure.	Net Revenue.
	£	£	£
1866–67	56,777	31,475	25,302
1867–68	51,738	30,030	21,708

The profit on the outlay was therefore 180 and 172 per cent. respectively.

Sanitation and Public Health.—The practical results of sanitary efforts towards improving the health of the people by increased cleanliness and more perfect conservancy, have been most marked in the larger cities and towns of these provinces in which the Municipal Act was in force, and where a fair amount of municipal funds was available for such purposes. In the villages, however, but little improvement had as yet been effected. The recent appointment of a Sanitary Commissioner will, no doubt, lead to better results.

Fairs.—A remarkable contrast, as compared with the previous year, appeared in the numbers that attended the annual Hurdwar Fair in 1868, of which full particulars were given in last year's report; the greatest number of persons at any time in 1868 scarcely exceeded 100,000, while in 1867, 3,000,000 are said to have been present. Various reasons are assigned for this. The Hurdwar Brahmins ascribe it to the belief entertained by the people that the Government desired to discourage the collection of great crowds at this fair, and to the fact that those who attended disliked the restrictions imposed upon them on the last occasion, but it was more than probable that the small assemblage was due to the unusually large attendance at the two preceding fairs, and the fear of a fresh outbreak of cholera.

Mortality.—The total number of deaths in these provinces was 377,682 in 1867–68, which among a population of 30,016,137 according to the last census, gave a death rate of 1·25 per cent., the average age at the time of death being 36. By far the largest number of deaths was among children under 10 years, the preponderance being among the males. Of deaths to 1,000 living 5·8 were caused by fevers, 1·9 by cholera, 1·4 by small-pox, 0·8 by dysentery and diarrhœa, 1·2 by other zymotic diseases, and 1·4 by all other causes, thus giving a total of 12·5 for the whole province.

Oude.

Physical Outline.—The province of Oude, so called from the ancient city of the same name, is situate in the centre of the great Sub-Himalayan Valley, drained by the River Ganges and its tributaries, and is bounded on the north and north-east by the lower ranges of the Himalayan chain and the territory of Nepaul; and on on all other sides it is surrounded by the North-West Provinces. It lies between latitude 25° 34′ and 29° 6′ north and longitude 79° 45′ and 83° 11′ east; its length is about 270 miles in a direction from south-east to north-west, and it is about 160 miles in breadth. The sub-montane jungles, known as the Terai, consist of a thick impenetrable morass affording shelter to the larger species of wild animals, and they are very deadly. The general surface of the rest of this country is a plain yielding exuberant crops. The rivers which intersect this tract almost in parallel

courses are the Ganges, Chonka, Ramgunga, Raptee, Gogra, Goomtee, and Saee. Steamers can ply in the Gogra as far up as the Byram Ghât, but the sinuosities of the Goomtee limit commercial navigation; the Raptee is a mountain torrent; the other streams are mere rivulets. Of timber trees, such as the toon, sissoo, sal, and teak, there is a plentiful growth.

Climate.—The climate varies extremely, and is for the most part of the year very dry, the temperature varying from 28° to 112°. The cold season prevails during the months of November to February, making the atmosphere pleasant and salubrious, and sufficiently chilly at times to form a thin coat of ice on shallow waters. From March to June it is very hot, and so sultry and dry as to cause the woodwork to crack; the temperature, however, diminishes towards sunset, and the nights are rarely oppressive. The rains commence in June and terminate in October, the annual fall varies greatly in amount, the average for the whole province was about 31 inches in 1866–67, but it has been known to be as much as 80 inches. On the west the dry winds parch the soil, but towards the south-east the moisture of the easterly winds cover it with a pleasing verdure. Wild animals of the smaller kind and snakes abound in this part of India, by which many lives are annually lost; as many as 1,127 are reported to have been killed by snakes alone in 1867.

Products.—The staple articles are wheat, barley, maize, bajra, rice, and pulse; cereals, oil, sugarcane, indigo, and cotton are also produced in abundance; pepper is largely cultivated, the bulk of which finds its way into the Government factories at Ghazeepore. The most important and lucrative manufactures of this province are salt, saltpetre, and soda, but the saltpetre branch of the trade, which was formerly of considerable importance, has of late years almost become defunct. The main cause of this was the levying of an enhanced duty some years since, and the consequent rise in price which called forth an effort to provide a substitute described as being equally good, and now purchasable in the home markets at a price which is unremunerative to the manufacture of saltpetre. The trade with Nepal consists of an exchange of salt and opium for the iron, copper, brass, and borax of the hills. In 1866–67 it was reported that the trade of the province was better than it had been for some years past. The external demand for its produce, and the high prices obtained, had tended greatly to benefit the owners and tenants of land.

Area and Population.—The area of Oude is about 20,142 square miles, containing an estimated population of about 8,326,647. No regular census has yet been taken of this province. The density of the population is about 413 to the square mile, and much greater than that in the North-West Provinces or that of England and Wales, which according to the census of 1861 was about 344 in an area of 58,321 square miles (as stated above). From the Brahmin and Rajpoot castes the East India Company drew their finest men as soldiers for the native army. Mahomedan communities of Sheikhs, Syuds, Moguls, and Afghans are to be found throughout the country, and there are a few families originally sprung from Hindoo stock who still adhere to the rites and customs observed by their Hindoo brethren, though their ancestors embraced the faith of the conquerors. The Aborigines are to be found among the lowest class of cultivators.

Political.—Prior to the subjugation of this province the internal history of Oude may be described as one of uniform extravagance and unparalleled profligacy, combined with the grossest abuse of royal power and the most heartless disregard to justice, or of that paternal care which every king should show towards his subjects. The earnest and increasing remonstrances of the Governor-General of India met with but a callous response from the dissipated monarchs, till at last the patience of the Government was worn out and the necessities of the people demanded a change. In consequence, therefore, of the misrule and anarchy that prevailed, early in 1856 the British Government was compelled to annex the country. The then President, Sir James Outram, was the first chief commissioner appointed for the administration of its affairs, and the system that was adopted was assimilated to that which had proved so successful in the Punjab. The country was divided into four commissionerships with five districts to each. The commissioners and their staff were warned that the revenue would be forestalled by an impoverished government, and were accordingly directed to collect from the standing crop and sequestrate it if necessary to enforce payment. The land revenue was

then to be settled summarily for three years with those who were in actual possession, without any recognition of proprietary right. The assessments were ordered to be moderate. One per cent. on the demand was levied for a road fund, and provision was made for the village police. The consideration of the claims of talookdars and middle men was to be made the subject of judicial trial. The subdivision of districts comprised villages yielding an aggregate of 20,000*l.* to 30,000*l.* a year. Transit duties were abolished, and the petty exactions of oppressive landholders suppressed. Rent-free tenure of land was allowed on production of satisfactory proof. Military grants were resumed. The police were divided into military and civil, the latter on the model of other provinces. Prisons were established. The Punjab civil code was introduced save where the *lex-loci* interfered, and small cause courts were also established.

To prevent the possibility of opposition, a strong force was assembled at Cawnpore. But the occupation of this territory was effected in a quiet manner, the people appeared to be favourable, the king acquiesced, and his troops were disbanded and exhorted to good behaviour. A threatened commotion which sprung up in Lucknow, was put down by the civil authorities.

Such was the position of affairs on the occupation of the province by the British. In 1857 a rebellion, which was immediately connected with the mutiny of the Sepoy army, broke out, and all Oude was in arms. In March 1858 the capital Lucknow was regained by the British soldiers; and a proclamation was issued to all landholders demanding their submission, and declaring confiscation as the just sentence of rebellion. Mr., now Sir Robert Montgomery, was appointed chief commissioner. He spared no pains to make known to the people that timely submission and faithful obedience to the paramount power would stay the execution of the sentence of confiscation; and from every part of Oude, with a few exceptions, a ready response was sent into Lucknow; the temper of the landholders of western Oude was not unfavourable to British rule. By the close of 1858 this province was cleared of rebellion, and regained a state of peace and safety, the people were disarmed, and the forts dismantled; out of 1,635 forts existing in various parts of the country, 1,585 were destroyed, leaving 50 which were retained for Government purposes; the total number of arms taken from the people amounted to 1,464,145 of all sorts and descriptions.

Early in 1859–60 an uneasy state of feeling prevailed in consequence of a belief in the temporary nature of the settlement arrangements then in vogue. In consequence, therefore, of the fears entertained by the talookdars, and of the unreasonable expectations indulged in by village proprietors of a return to the policy of 1857; it was declared at a durbar held by the Governor-General, that the ancient talookdaree system of Oude had been revived and perpetuated, and sunnuds or title deeds were accordingly given for the estates to every landholder present on that occasion. The result of the visit, and of the assurances then given by the Governor-General in person was most beneficial in allaying the disquietude of this class of the people. Confidence in the settled policy of administration took the place of distrust and vague expectation of change. The talookdars believed in the reality of their pardon, a most marked change was apparent in their demeanour after the Durbar, and they were at once won over by the policy pursued towards them by the Government.

Another important feature was the bestowal of magisterial and revenue powers on certain great talookdars, the object of which was "to turn to the purposes of "good government the influence that the hereditary chiefs of Oude legitimately "possess," and "to knit them to the administration of their country." The result of this experiment proved most successful, inasmuch as their numbers have considerably increased; in 1861 upwards of 800 talookdars and others were associated with the Government in the internal administration of the affairs of this province.

Much controversy having ensued regarding the conflicting lines of policy pursued in 1856 and 1858 towards a satisfactory settlement of the country, relatively between the talookdars and the sub-proprietors of the province, a kind of compromise was adopted by the Government of India in 1866 with the consent of the talookdars themselves. Under this compromise the sub-proprietor would be able to recover any rights held under a talookdar at any time during the twelve years preceding the annexation of Oude, and to redeem lands mortgaged to the same prior to annexation, which under the settlement of 1858 he could not do.

Moreover, it was agreed on the part of the talookdars, that a large class of the tenantry (estimated at one-fifth of the whole of the cultivators in Oude) should receive rights of occupancy; and important advantages were afforded to other tenants of the same class. This compromise, though perhaps not perfectly satisfactory to the controversialists on either side, could not fail to prove advantageous to the parties themselves, and at the same time be productive of beneficial results to future generations, inasmuch as it secured to the talookdars ample rights, position, and privileges, whilst by the timely concessions granted to the tenant cultivators, the country was guarded against perils arising from the severance of the proprietors and cultivators from all connexion with the soil, or from liability to eviction as a class possessing no rights capable of definition, or worthy of preservation at the hands of British authorities.

The imposition of a tax on trades and professions in 1859–60, though strictly a financial measure, had sufficient political bearing to justify a few remarks in this place. The principle on which the scheme was based was to take 3 per cent. on incomes, and after roughly estimating the amount thus due from the rateable inhabitants of each village or town, to leave the distribution to the people themselves. In talookas this work was mainly intrusted to the talookdars who zealously co-operated in it, and prevented an undue share of the burden being thrown on the poorer classes to ease the rich. With the exception of the city of Lucknow no difficulty was experienced, either in the distribution of the assessment or in the collection of the tax. The appeals regarding the tax were very few, and those preferred did not relate to the nature of the tax.

In consequence of the imposition of this tax the octroi duties were abolished, the levy of which operated as a restriction on trade. Its collection was therefore confined to large towns, where it was necessary to defray the cost of special police. Octroi duties only existed as a substitute for the house cess which was general in older provinces.

During 1860–61 final orders were passed by the Government of India on the question of making primogeniture the rule of succession in the great talookdaree families of Oude. No restriction was placed on the talookdars as to the disposal of their estates during lifetime, nor by bequest under will in any way or to whomsoever they might please. This right was guaranteed by the terms of the sunnud granted at the durbar of the Governor-General in 1859. But in the case of intestacy it was laid down that the estate should then devolve to one heir, and not be subject to division amongst several. Accordingly a fresh clause was inserted to the title deeds of such talookdars in whose families the raj or guddee had not hitherto existed, and who were willing to adopt the rule, the condition of the grant by Government being that the estate should in the event of the intestacy of the talookdar, or any of his descendants, be subject to the rule of primogeniture. As many as 160 talookdars then adopted the rule.

In November 1861 the Governor-General (Lord Canning) paid his last visit to Lucknow, the immediate object of which was to receive an address from the British Indian Association of Oude on the important question of female infanticide, which prevailed to some extent chiefly among the Rajpoot clans. The talookdars had been for some time deliberating on this subject, and had drawn up certain rules for the suppression of this cruel and inhuman practice, of which the most important was that "every talookdar should take a solemn covenant from his "tenants, binding them never to commit or countenance directly or indirectly "female infanticide in any manner whatever, and that in the event of any one "violating the covenant, be his rank or condition in life what it may, he shall "forthwith be handed over to the laws, and excommunicated for ever from the "pale of Hindoo society as a felon and an outlaw." In reply to the address, which was signed by 200 talookdars, the meeting was warned that "in accepting "an aid beside and beyond the law there was no compromise on the part of "Government with so hateful a crime, and that if the result of the efforts of the "Association should not equal their expectations, or should be tardy in showing "itself, the law would not be allowed to sleep, but would be enforced to the "utmost power of Government, regardless of everything but the utter suppression "of the abomination." The rules, with certain modifications, have been introduced, and as many as 55,000 persons signed the covenant in 1861–62. Though there were no statistics to prove that the crime had diminished, yet no doubt was entertained by the local authorities, from the attitude assumed by the talookdars, of a great check having been given to the practice on their estates.

The attention of Government was attracted early in 1863 by the lavish expenditure bestowed on the occasions of marriage between the families of the chief clans of this province and those of the Rajpoots in the North-West Provinces. The talookdar's Association was therefore appealed to, and that body was urged to take measures to reduce the expense of these ceremonies. It was pointed out at the same time that certain ruin would overtake their families if the custom was not abolished, and that the example thus set was invariably imitated by their humbler kinsmen, driving many small proprietors to mortgage and sell their properties in order to raise the necessary funds. This custom had also been at the root of infanticide which the talookdars had bound themselves to suppress. When the families of the Rajah of Dera and the Rajah of Mujowlee were united by marriage as many as 35,000 persons were reported to have been fed for six days. The exhortation of the chief commissioner was not without its effect, for on the occasion of the next marriage which ensued, that of the daughter of the Rajah of Morarmow, the head of the Bais clan, the expense of the ceremony was comparatively trifling. At a general meeting of the Association held subsequently, certain resolutions were adopted which met with the approval of the Government of India, the main points of which were—(1), that no superfluous paraphernalia should be borrowed for such occasions; (2), that no money should be taken from the father of the bride beyond what would suffice to entertain the party accompanying the bridegroom at the marriage; (3), that daughters should be given in marriage to those only of equal rank; (4), and that the marriage expenses should not exceed one-half of the annual income of the contracting parties. It should be stated here that the second resolution struck at the main root of the evil, but it was thought difficult if not impossible to enforce it, without the co-operation of the Rajpoot chiefs of neighbouring territories.

The following information has been taken from the latest reports received.

Judicial.—A marked decrease appears in the number of civil suits on the files of the courts in the province of Oude, the numbers being 22,558 in 1867 against 25,519 in 1866; the number disposed of were 22,099, and 25,005 in the respective years, while those pending at the close of the year were also less by 55. This decrease in litigation has been attributed partly to the introduction of the new Stamp Act which increased the rate of duty, and partly to a better harvest and improved position of the people. A growing dislike to arbitration had sprung up on the part of suitors from the fear of there being no appeal against an award; and a probability existed that in many cases an unsuccessful attempt to settle a dispute by the good offices of neighbours preceded a resort to the courts. At the same time supercession of arbitration was not deemed desirable since it not only relieved the courts, but accustomed the people to the transactions of affairs apart from their domestic or individual interest.

The number of appeal cases to the commissioners increased from 253 to 269, and in the Judicial Commissioners Court from 332 to 390, of those instituted during the years 1866 and 1867.

The total value of suits was 306,375*l.* compared with 355,309*l.* in the preceding year, while the total costs of suits rose from 21,968*l.* to 22,703*l.*

Of the miscellaneous cases 17,680 were disposed of out of 18,616 to be heard.

The Small Cause Courts of this province are reported to be very popular among the trading class. The business done in the Lucknow city court as compared with that of the leading cities in the North-Western Provinces was very great, as may be seen in the margin, while of these the same court tried on their merits as many cases during the past year as the other three courts put together.

Lucknow - -	2,969
Agra - - -	2,037
Allahabad - -	1,571
Benares - -	1,675

The total number of criminal offences reported was 50,842 against 53,291 in 1866, of which 17,061 were tried, but the number of persons tried was 32,165, being 1,369 more than in the preceding year. The decrease in the number of offences was chiefly in thefts and burglaries, attributable to the greater plenty and cheapness of food, combined with the improvements of the police both regular and rural. In the class entitled bailable offences there was, however, an increase, which tends to show that the people are not deterred from making complaints by reason of the petition now being on stamped paper.

Police.—During the past year Government sanctioned a scheme for the separation of the police into two bodies, armed and civil. From a difficulty in

arranging the details the scheme had not been carried out. Measures had, however, been adopted to stop the enlistment to a certain extent, and gradually to reduce the force to the proposed strength and to carry out the intramural guard system in all jails suitable to it.

With respect to the municipal police, no change had occurred, but the introduction of Act XV. of 1867 into certain towns, and of Act II. of 1865 into the larger villages, will no doubt necessitate a revision of its establishment, which in many instances is on too expensive a scale, and absorbs too large a proportion of the municipal income.

The rural police have on the other hand improved during the past year, and much had been done towards ensuring their regular payment. Their position may thus be summarised:—They are appointed by the Zemindars and paid by them in land or money at their option, provided the authorities are satisfied of the sufficiency of the provision. Should the Zemindar fail after warning to pay the Chowkeedar, the deputy commissioner collects the cess from him and pays the Chowkeedar himself. The Chowkeedar can only be dismissed by order of the deputy commissioner.

	Cognizable Crime.
1865	52,171
1866	46,991
1867	42,887

The decrease observable in reported cases of cognizable crime, as shown in the margin, is almost entirely under the head of theft of all classes, and is attributed to the fall in the price of grain; at the same time the improvement in both the regular and rural police contributed in some degree towards it. The amount of property stolen was 48,019*l.* against 48,500*l.* in 1866, of which 11,531*l.* had been recovered as compared with 6,357*l.* in the previous year, or a proportion of 24 per cent. against 13 per cent. in 1866.

Education.—Two additional deputy inspectors were appointed during the past year consequent on the extension of the village schools. The general expenditure amounted to 18,678*l.* from imperial funds, and 14,068*l.* from local funds, the increase in the total expenditure being at the rate of 24 per cent., the number of pupils increased from 16,265 to 24,305 in 1867–68, or at the rate of 49 per cent.

	School Fees.
	£
1865–66	1,080
1866–67	1,245
1867–68	1,729

Though the fees collected show a further increase, Government have frequently called attention to the comparatively small amount paid in school fees in this province. No doubt many of the talookdars are wealthy, and a comparatively large amount was raised from them as private subscriptions for educational purposes; but the people who send their boys to school are for the most part exceptionally poor. Formerly the wealth of the country was in the hands of the talookdars, and used to be spent on the pomps of court, but now a great deal of it goes to the people, and will show itself hereafter; in the meantime, however, with a settlement in progress, the agricultural classes are naturally put to heavy expenses, and the people of Lucknow who have been deprived of the former court expenditure on which they lived, are in a state of miserable destitution. Hence it was feared that for some time to come higher fees could not be expected, though every endeavour to establish the system would be adopted without causing any pressure as might tend to diminish the attendance at the schools.

The number of candidates from Oude who went up for the university entrance examination was 17 only, as compared with 23 in 1866, but it is satisfactory to find that out of this number 15 passed, while only 6 passed in the previous year.

During the past year it was found desirable to open some branch schools in connexion with the district higher class establishments, with the view of bringing a larger number of persons under instruction, and in order to relieve the central school of the lower classes, and thus raise its character. Should the experiment succeed it was contemplated to make the pupils of the branch school pass an examination prior to joining the central one.

Government female schools are yet in their infancy in this province, and suffer from a lack of qualified teachers. Efforts are being made to supply this deficiency. Great objection is made to their inspection by the officers of the department, though European ladies are at times allowed to visit them; they report the teachers to be earnest but incompetent. The number of these schools, however, increased from 6, with 83 pupils, in 1866–67, to 24, with 436 pupils, in 1867–68.

The study of the English language is steadily advancing. The system of asking the people who wish for it to add English teachers, at their own expense, or with the assistance of a grant-in-aid, to the Government vernacular schools has been tried with success. The number of pupils learning English increased from 2,171 in 1864–65 to 3,854 in the year under report. It is thought not impossible that this will become the first self-supporting branch of education, though Government help may be required for some time to come.

Revenue.—The average rainfall of the past year was 31·2 inches, ranging from 23·4 inches in the Lucknow district to 40·1 inches in Fyzabad. Though somewhat scanty the fall was considered sufficient, and the harvests had been good and abundant. In the terai of the Buraech district, however, the rain, though abundant, did not fall seasonably, and the crops consequently suffered. The prospect for the ensuing year was all that could be desired. The rain was more plenteous in 1867 than for many years past, and the harvest was more abundant, attended with a great fall in prices.

The demand for land revenue was considerably higher, having been 1,161,339*l.* against 1,084,317*l.* of the previous year. Of this 1,144,165*l.* had been collected. The balance uncollected at the close of the year was less than 1½ per cent. of the demand, and the outstandings have been reduced nearly 10,000*l.* In no district were the balances consequent on the new assessments, but arose from improvidence and indebtedness of individual landholders. The increase in the demands, however, were from the operations of these new settlements.

Summary suits fell from 31,319 to 25,228, and the number with and without pottahs from 28,956 to 23,246; this decrease may be looked upon as satisfactory considering the revenue had been more completely collected than in the previous year in the face of an increased demand. It was remarked that the diminution in the number of suits preferred for arrears of rent in most districts was to be attributed to the easier circumstances in which cultivators had been placed by good crops and high prices, and that suits for pottahs would, after the passing of the rent bill, lose their present significance. Under the provisions of this bill the tenant refusing his landlord's terms will have to give up the land. The decrease of suits under the title of "ouster" was to be attributed to the action of the new stamp law.

The illicit sale of opium by cultivators had greatly affected the revenue from this source in the districts of Lucknow and Fyzabad. The difference between the Government buying and selling price was too great a temptation for them to resist. Measures were being taken by the Government with a view of remedying this evil for the future.

The collections under customs also decreased during the past year. The saltpetre trade having collapsed, ceased to be profitable, and it was feared that nothing but a rise in the price of the articles from which its substitute is made would revive the trade.

Survey and Settlement.—The result of the survey and settlement operations showed that at a total cost of 127,159*l.*, the total revenue assessed amounted to 905,953*l.* The revision of the Lucknow and Roy Bareilly divisions was, with the exception of the Sultanpoor district, completed, as was also the district of Hurdui in the Cheetapore division. The assessments of the other districts, excepting Gondah, were in a more or less forward state. The rate per acre at which the total revised assessment fell was a fraction over 4*s.* on the cultivated land, and about 3*s.* on the malgoozaree. The increase of the assessment up to the close of the year was 30 per cent. on the revenue proper as distinguished from the cesses, which have not been included in the figures given above.

Waste Lands.—The total valuation of waste land sold up to the latest date was 89,267*l.*, and the amount of interest accruing 9,692*l.*; the amount of principal realised was 36,544*l.*, and of interest 5,738*l.*, thus leaving a balance of 52,723*l.* and of 3,954*l.* respectively.

The grantees have by no means found their speculation as profitable as they expected. There appeared to be great difficulty in getting people to settle owing to the unhealthiness of some of the grants, and where settling had been attempted by Europeans on a considerable scale, it has been attended with considerable loss of life and the abandonment of the lands by the people. The natives, however, who attempted it on a much smaller scale, has been more successful. Several purchasers, owing to default, made themselves liable to the loss of their estates by resumption under the rules, but pending the result of a reference made to

Government in consequence of a memorial presented by a number of waste land purchasers and grantees under the old rules, no extreme steps have been taken.

These remarks, however, applied rather to the grants in the Kheeree district. In Gondah the success of the grantees had been more decided. There was a better supply of labour there, and the grants were not so unhealthy. One grantee in this district, a large banker at Mirzapoor, had shown an uncommon amount of enterprise, not only by his extensive clearing, but also by the establishment of bazaars. European fabrics having been sold in places, which, but a few years ago, were dense jungle.

Recently the waste land question assumed a new phase in this province in connexion with the supply of fuel for the railway. The Government were therefore anxious to retain in their hands all wooded grants yet undisposed of, and even to recover lands which the grantees may be willing to throw up upon which wood suitable for fuel may be found.

	Europeans.	Natives.
Cavalry - -	480	1,005
Artillery - -	753	—
Infantry - -	3,373	2,377
Total -	4,606	3,382

Military.—The strength of the military force of this province was represented at 7,988 against 7,408 at the close of 1866, the detail of which is exhibited in the margin.

During the year the troops had been very healthy. They have also been very orderly and well behaved. The cantonment of Roy Bareilly had been abandoned owing to the removal of the troops, but the station had not yet been finally made over to the civil authorities.

An industrial exhibition, held at Lucknow in the early part of 1868 for the sale of articles produced by the soldiers, was very successful. Many beautiful and interesting articles were exhibited, and generally sold well.

The Government ice machine erected at Lucknow had been got into working order, and proved a great comfort to the men. The hospitals are abundantly supplied with ice obtainable at almost nominal prices, but the men do not altogether evince that appreciation of it that might have been expected, though many prize it very much.

Public Works.—The aggregate expenditure in the province of Oude on account of public works during 1867–68 amounted to 237,753*l.*, of which 27,435*l.* was on account of establishment. 93,800*l.* were expended on civil works, and 116,517*l.* for military purposes. Among the former the largest items appeared under the heads of public buildings and communications such as roads and bridges. And under military expenditure that for barracks amounted to 90,871*l.* A commencement was made last year towards the introduction of irrigation works into this province, for which object a staff of engineers had been appointed to survey the country and prepare a project for canals from the Sarda river.

Public Health, Medical and Sanitation. — A sanitary commissioner was appointed at the close of the year 1867–68. In the early part of the year cholera broke out in the Terai in the camp of the Maharajah Jung Bahadoor. Active measures were taken to prevent the spread of the disease with some success, and though no one district was entirely free from it, yet it never became virulent anywhere else. Towards the latter end of 1867 an epidemic of jail fever with somewhat fatal effect broke out in the Gondah jail, and could not be suppressed till about April 1868. The origin of this fever could not be traced to any contagion from the outside, and was therefore to be attributed to some defect in the arrangements at the time of their isolation and removal into camp.

A cattle plague also broke out in the month of October 1867 in the district of Hurdoee, and some 14,000 animals are said to have been carried off. Quarantine and isolation were resorted to with some success.

Considerable attention has been paid to conservancy during the past year. At Lucknow a health officer has been appointed, and a large sum spent in maintaining an establishment for cleaning the place. The dry earth system has been adopted and practised with success, but a difficulty existed as to the removal of the sewage. Hitherto it had been used to burn bricks, and it was proposed that if not made self-supporting, to utilize the sewage as manure, and thus endeavour to meet the conservancy expenditure.

The three great fairs of this province were held at Adjoodia or Oude, Gokurnath, and Dabee-Patun. At each of these the conservancy arrangements met with the hearty co-operation of those who generally reap the main profits,

and though different modes were adopted, there had been no difficulty in raising the necessary funds for the purpose.

Out of 3,177 persons treated under vaccination, 2,360 cases, or 74·28 per cent., had proved successful. The cost was a trifle more than 1*s.* a head. The passive opposition of the people prevented the work being greater; they do not as yet believe in vaccination, and regard small pox as a kind of deity to be propitiated by offerings and gifts.

Out of 83,591 patients treated in the 19 medical institutions of this province, 61,165 had been cured in 1867–68; 12,535 relieved; and 614 died. The total receipts amounted to 5,610*l.*, and the expenditure to 3,302*l.*, thus leaving a balance of 2,308*l.* As compared with the previous year the number of people treated fell considerably, notwithstanding the establishment of several branch dispensaries; but this was accounted for by the absence of any general epidemic disease.

Punjab.

Physical Outline.—The province of Punjab when first taken possession of by the British consisted of the Cis- and Trans-Sutlej States, chiefly acquired after the first Sikh war in 1846, and of the Punjab proper annexed after the second Sikh campaign in 1849. Besides the British territory there were several native States, politically dependent on the Punjab. Since the mutiny of 1857, the divisions of Delhi and Hissar, which till then were administered under the North-West Provinces, have been added to the Punjab.

The Punjab Government lies in latitude between 27½° and 35° north, and in longitude between 69° and 79° east. It is bounded on the north by Cashmere; on the east by Tibet in the Chinese Empire, and by the North-West Provinces of Bengal; on the south by Rajpootana and by Scinde in the Presidency of Bombay; on the west by Afghanistan. The five rivers which give the name to this part of India are the Indus, Jhelum, Chenab, Ravee, and the Sutlej; there is also the Beas, which flows into the last-named; and the Jumna to the eastward, which forms a natural line of demarcation between the Punjab and the North-West Provinces. Besides affording means of inland navigation, these rivers have proved of great value for irrigation.

The four Doabs are still popularly known by those names which were given them in the days of Mogul ascendency. The Baree lies between the Beas and Ravee, and the Reechnah between the Ravee and the Chenab; the Jetch between the Chenab and Jhelum. The fourth, enclosed by the Jhelum and the Indus, takes its title from the latter, and is styled the "Sindh Saugor," or "Ocean of the Indus." Of these the Baree Doab carries off the palm, as containing the home of the Sikh nation, and the three greatest cities, Lahore, Amritsur, and Mooltan.

The face of the country presents every variety, from the most luxuriant cultivation to the most sandy deserts, and the wildest prairies of grass and brushwood. The culture manifestly depends upon two causes—the lower Himalayan range, and the rivers. From the base of the hills southward, there stretches a strip of country from 50 to 80 miles broad, watered by mountain rivulets, and for fertility and agriculture unsurpassed in northern India. In their downward course the rivers spread wealth and fruitfulness on either sidé, and their banks are enriched with alluvial deposits, and fringed with the finest cultivation. These tracts are not relieved by any picturesque features, but are studded with well-peopled villages, are covered with two waving harvests in the year, and are the homes of a sturdy, industrious, and skilful peasantry.

In the centres of all the Doabs there are interminable wastes overgrown with grass and bushes, which are scantily threaded by sheep-walks and the footprints of cattle. The chief tenants of these parts are nomad pastoral tribes, who, knowing neither law nor property, collect herds of cattle stolen from the agricultural districts. This region is the only source from which the capital, the chief towns and cities, and the British cantonments, can be supplied with firewood. It yields an abundant supply of grass for all equestrian establishments, and sustains with its inexhaustible pasturage a noble breed of cattle, buffaloes, sheep, and goats. Its boundless grazing grounds support the race of camels that mainly carry on the Cabul traffic. In the Sindh Saugor Doab the waste is much less overgrown and productive, and is little better than a sandy desert, within which the famous fort of Munkhera is the only sign of human habitation. This Doab is divided into two parts by the salt range which runs east and west from the Jhelum to the Indus, and then reappearing on the

opposite bank, stretches onward to meet the Suliman range. Below it spreads the sandy champaign, above it rises a plateau of table land, abrupt, rocky, and precipitous, in places undulating into numerous valleys and glens adorned by cultivation. Otherwise, sterility extends throughout the upper and lower divisions of the Doab.

The tract of country comprising the Cis-Sutlej states, which intervene between the Jumna frontier and the river Sutlej, does not boast of more than an average degree of fertility. In many places the soil is sandy. Its ancient capital is Sirhind.

The Trans-Sutlej states consist of the Julinder Doab, situated between the rivers Beas and Sutlej, and the hill country lying between the Ravee and the Beas. The extreme north-west boundary adjoins the Jamoo territory; the northern includes the snowy ranges of the Himalayas, and touches the limits of Ladâk and Tibet; the alpine region of Kangra is the finest district in the Punjab; it is a succession of hills and valleys, many of which are overlooked by the snowy range. Among these valleys is placed the sanatarium of Dhurmsala. Its fertility is almost unrivalled from the fact of the numerous channels which are formed from the hill torrents for purposes of irrigation. Three harvests are said to be produced in the year. In many parts there are magnificent forests of timber trees. The centre of the Julinder Doab is traversed by a low range of hills extending from one river to the other. Below this range towards the confluence of the rivers Beas and Sutlej there extends a champaign of unvarying fertility, and considered the fairest portions of the Punjab plains.

Language.—The language of the Punjab is a compound of various tongues. In large towns the dialect spoken is of the border or Hindustanee; but in the villages the dialect in use is Jâthky, sprung from a cognate root, and originally the language of the country; in the southern frontier Punjabee contains a large admixture of the Sindee. The prevailing languages are Urdu, Hindi, Punjabee, Jalu, Bagari, Bhutti Pahari, Lahaoli, Persian, Kashmiri, Pushtu, Goojeratee.

Climate.—The climate of the plain of the Punjab is in general characterized by dryness and warmth. Little rain is said to fall except along the southern base of the Himalaya, and where the south-west monsoon is partially felt. The rains of the monsoon extend to Lahore, where the fall is heavy at midsummer. The winters are cool even to the feelings of a European; the average mean temperature in the shade during the months of May and July during 1867–68, was not below 75°, and in the southern regions even reached as high as 95°. At Simla, situated among the hills, the average was about 62° in the same months. In the month of December the average mean temperature fell to about 55°. In the north-west Himalayas, at an elevation of about 8,000 feet above the sea, the month of February is the coldest, and so much as 62 inches of snow have been known to fall. The average rain-fall for the whole province was about 23 inches.

Products and Manufactures.—Cotton is largely grown in almost every district. Indigo is produced in large quantities in the southern districts. Tea is confined to the Kangra district in the hills, where its cultivation is carried on chiefly by European settlers or managers of estates owned by joint stock companies. Sugar-cane is also grown chiefly in the northern divisions. Oilseeds, rice, wheat, and other grains, are almost universally cultivated throughout the province. Opium is produced chiefly in Umballa, Julinder, Amritsur, and Rawul Pinde divisions, but not to any very great extent; tobacco is also to be found in all districts. Fibres are to be found, also, in all the northern parts of the province, but especially at Rohtuck in Hissar division. The plantations of chinchona which have been established in this province give every promise of success. With the exception of the Mooltan division, the country is unfortunately destitute of trees; timber is consequently almost unprocurable, and even firewood would be scarce but for the supply obtained from the central wastes already described in the various Doabs.

The great majority of manufactured articles in use in this province are produced within its limits; a few, however, are brought in by the north-western frontier trade. Several cities and districts have gained a celebrity for particular manufactures. The chief seats of art and commerce are Amritsur and Mooltan. The indigenous manufactures consist chiefly of cotton, silk, carpets, and wool. Good artificers may be found in carpentery, ironmongery, and armoury. Articles of all these descriptions are more or less exported. The art of embroidery is very consonant with the habits of the people. The imports are chiefly British cotton and piece goods,

shawls and woollens from Cashmere, and dried fruits and furs from Affghanistan. The merchants who traverse the Punjab from the west are a remarkable class. They travel with great caravans and long strings of camels. Having to pass through defiles tenanted by savage and ferocious tribes, they are armed to the teeth. With wonderful perseverance they travel over half the length of Asia, exchanging the products of Tartary, Cabul, and Tibet for the commodities of Europe, at the quays and marts of Calcutta.

Area and Population.—The total area of the British possessions of the Punjab covers an extent of 95,768 square miles, while that of the native states in political relation with this Government, is given approximately at 197,349 square miles. The population of the former according to a census taken in January 1868, amounted to 17,593,946, which would give a density of nearly 184 to the square mile throughout the province. In two districts the density exceeded 500, in four it was between 400 and 500, and in three it was between 300 and 400. Of the Christian portion of the population 17,938 were Europeans, 1,032 were East Indians, and 2,949 were natives; of the other sects the Sikhs numbered 1,129,319; Hindoos, 6,134,243; Mahomedans, 9,335,632; and others 972,833; classed according to occupation there were 9,403,819 agriculturists and 8,190,127 non-agriculturists.

Compared with other parts, this province is a little less in size than the kingdom of Italy, which according to the census of 1864 rendered the area of that state at 98,784 square miles, and the population at 21,703,710. The density of the Punjab more nearly approaches that of Ireland, which in 1861 was stated to be at 181 to the square mile.

Of the total area of the British portion of this province, 32,432 square miles have been returned as cultivated, 23,780 as culturable, and 39,556 as unculturable. The greater portion of that mentioned as culturable waste is situated in tracts where the rain-fall is so scanty that cultivation without irrigation would be impossible, and the water so far from the surface that wells are too costly to admit of construction with any prospect of remuneration. Besides which there are certain tracts consisting of *scrub*, the retention of which is necessary for fuel purposes, hence, the really culturable portion would be about one-tenth of the total culturable waste.

The bulk of the agriculturists are the Jâts, who at one time were the nucleus of the Sikh commonwealth and armies. They were equally great in peace and war, and have been the means of spreading agriculture and wealth from the Jumna to the Indus. Their chief home is in the Baree Doab, and their capital is Amritsur, but they possess extensive colonies in other parts of the province; in the southern parts, however, the Jâts are held in indifferent repute, their importance is merely agricultural, and they profess principally the Mahomedan creed. The Gujars are also a numerous tribe devoting their attention to cultivation, but are more industrious and less predatory than their brethren of Hindostan. Many of the northern tracts are held by Rajpoots, who have descended from the hills and settled in the plains; they are poor agriculturists, but inherit all the martial qualities of their race. Among the pure sects of Mussulmans, the Pathans alone have acquired any social importance. They are scattered throughout the country, but their principal localities are Mooltan and Kussoor in Baree Doab. The Hindoo race predominates from the Beas to the Chenab; but in all parts of this region the Mahomedans are largely interspersed, in the south, however, they actually form the majority; but of the Mahomedans, a large portion are of Hindoo origin, these Hindoo converts are also to be found in the region between the Chenab and the Indus. Beyond this last named river the Mahomedan race prevails. The Sikhs for the most part concentrate about Amritsur and Lahore. This sect was founded by Nanac, who was born in 1469, and received the name of Guru, or spiritual pastor, from his votaries, who styled themselves Sikhs or disciples. Their belief originally was pure deism, but they now consider their founder entitled to divine honours, and regard him as a saviour and mediator with God. Their faith admits the doctrine of the transmigration of souls, and of a future state of bliss for the good. To kill kine is considered an act of horrible impiety. Tobacco is prohibited, but fermented liquors are allowed; and beef is the only kind of food forbidden. Those Sikhs who adhere to the original doctrines of Nanac are called Khalasa, and are less fanatical and warlike than the Singhs or followers of Guru Govind, the tenth successor from Nanac, and the founder of the temporal home of the Sikhs. The fanaticism of this latter class almost borders on insanity. They

are called Acalis, and go about heavily armed. They are a lawless and sanguinary class, and would have rendered the country desolate had they not been vigorously coerced by Runjeet Singh. As soldiers they bear excellent reputation; they are generally speaking brave, active, and cheerful, patient of fatigue and privation, and readily rally under any reverse. Their repeated and signal successes against the Afghans were conclusive evidence of their valour, and during the mutiny of 1857 they rendered considerable service to the British.

Administration.—On the annexation of the Punjab in 1849, the machinery of Government was set in motion by the appointment of a board of administration, consisting of a president and two members, entrusted with full authority to control and supervise all departments. The executive staff were vested with criminal, civil, and fiscal powers, the officers for which had been summoned from the North-West Provinces, with some few selected from the army, and several of the most experienced officers on the north-west frontier. All were directed to meet at Lahore as a central place of rendezvous. The newly acquired territories were divided into five commissionerships, possessing in all 17 districts. The Cis- and Trans-Sutlej states were also each placed under a commissioner, the administration being similar in all respects with that which obtained in Punjab proper. Early in 1853, however, the Board of Administration was abolished, and in its place a chief commissioner was appointed in direct correspondence with the Government of India, and who was the head of the local administration in all civil and political departments. In 1859 this territory was constituted a lieutenant-governorship, and it is now divided for administrative purposes into 10 provinces or divisions of an average area of 9,567 square miles each. These divisions are again subdivided into 32 districts, with an average area of 2,992 square miles each, and contain 122 revenue sub-collectorates and 298 police stations. There are 417 magistrates, who nearly all exercise the powers of civil and revenue judges.

Survey and Settlement.— The survey establishments were employed during 1867-68 in making a trigonometrical and revenue survey in Upper Huzara and Khagan. The area triangulated was 2,000 square miles at a cost of 1*l.* 16*s.* per square mile, while that surveyed was 502 square miles, at a cost of 7*l.* 12*s.* per square mile. This latter cost, though high, was owing to the exceedingly difficult nature of the country. Six districts were under settlement during the year, of which two had been completed. The area settled in perpetuity amounted to 174 square miles, and the annual revenue assessed was 13,923*l.* 26,710 square miles have been settled for 30 years and upwards at an annual assessment of 1,151,694*l.*; that settled for 10 years and under 30, was 40,166 square miles, at an annual revenue of 633,702*l.*, and 18,328 square miles have been settled for less than 10 years at an assessed annual revenue of 280,571*l.*, thus leaving 10,390 square miles in course of progress, the annual revenue of which was assessed at 90,746*l.* The total area surveyed and assessed was in the aggregate 61,292,565 acres, of which 20,757,735 acres were actually under cultivation, 6,147,038 acres being under irrigation, and 14,810,697 acres unirrigated. Of the uncultivated land 3,888,923 acres were grazing lands, 12,941,817 acres were culturable waste, and the area unculturable was 23,704,090 acres. The rate per acre in cultivation amounted to about 2*s.*, and that on total area of settlement was about 8*d.*

Revenue. — The total demand on account of land revenue in 1867-68 was 1,956,867*l.*, which compared with that of the previous year showed an increase of 5,523*l.*, owing principally to the lapse of revenue-free estates, and to the assessment of waste lands brought under cultivation. Of the total demand all was collected saving the sum of 11,881*l.*, or a little more than one-half per cent. Of this amount only 778*l.* were irrecoverable.

Judicial.—At the close of the year 1867 there were 531 tribunals for the disposal of criminal, civil, and revenue cases, or about one tribunal to 33,000 persons. Of the judges 488 were stipendiary, and 43 non-stipendiary; 234 were Europeans, and 330 natives. Of the foregoing courts 43 exercised appellate as well as original powers; 10 were courts of sessions, while the chief court, composed of two judges, one being a barrister, was the final appellate authority in both civil and criminal cases, and acted as a court of original criminal jurisdiction in cases where British subjects were charged with serious offences. The financial commissioner also exercised final appellate jurisdiction in suits regarding land in districts where a settlement was in progress.

In the administration of civil justice the number of suits fell for the first time from 165,970 in 1866 to 144,628 in 1867, though this number was still greater than the aggregate of litigation in other provinces. The decrease was general, and most marked in the case of suits relating to land or land revenue, the ratio being 22 per cent., while other suits decreased at the rate of 10 per cent. The general causes cited for this decrease were, as in other parts of India, the increased rate of duty under the new Stamp Act; the absence of a large portion of the community at the Hurdwar fair; the sickness of the last months of the year; and the growing caution on the part of bankers and traders to take written obligations for payment of money. The total amount under litigation was 838,462*l.*, and the average value of each suit was about 5*l.* 12*s.* Of the total number of suits for disposal, amounting to 150,683, including those pending at the close of the previous year, 96 per cent. were decided during 1867 at an average duration of 18 days, 64·2 per cent. having been decided by native agency. The aggregate cost of suits had increased from 73,395*l.* to 81,385*l.* in 1867; and the per-centage of cost of suit to value rose from 17*s.* 3*d.* to 18*s.* During the year 8,117 appeals were on the files for hearing by deputy commissioners. Of these 349 cases were pending, against 569 at the close of the previous year; the average duration of appeal cases was 21 days. Of the appeals disposed of 8 per cent. were rejected; 59 per cent. were confirmed; and in 11·3 per cent. the orders were reversed; while in 16·7 per cent. the cases were returned for further investigation. These results were nearly the same as in the preceding year. Appeals to the courts of commissioners fell from 7,041 in 1866 to 5,832 cases in 1867; but the total for disposal amounted to 7,190, of which 5,880 were disposed of, the average duration being 72 days; 70 per cent. of the appeals decided were rejected or confirmed; 14 per cent. were reversed or modified; and 15 per cent. were remanded. The number of appeals to the chief court also fell from 1,543 in 1866 to 1,201 in 1867. Of those decided 37 per cent. were withdrawn, transferred, or struck off in default; 10·3 per cent. were decided wholly, 23·5 in part, in favour of appellant; 39 per. cent. were decided in favour of respondent; and 9 per cent. were returned for re-investigation. Besides the civil suits the district courts disposed of 818 miscellaneous cases.

The number of criminal cases under judicial cognizance was 49,403, of which 13,698 were non-bailable, and 35,705 bailable; the total number of persons brought to trial was 113,931, or 10,253 more than in 1866; the number of witnesses was 119,201. Of the cases under trial during the year all were disposed of but 467, affecting 971 persons, or less than 1 per cent.; and the duration of trials averaged seven days. Of 21,586 persons tried for non-bailable offences, 3·2 per cent. were committed to the sessions, 58·6 per cent. punished by magistrates, and 38 per cent. were acquitted or discharged. And of 91,106 persons tried for bailable offences, 10 per cent. were committed, 61·9 per cent. convicted, and 37·9 acquitted.

The chief court held five criminal sessions, in which six European subjects were committed for trial, and convictions were obtained in all cases but one. Besides its civil jurisdiction there came before this court 604 cases on its criminal side, leaving 40 cases pending at the close of the year.

The general results of the administration of criminal jurisdiction may thus be summarised. The number of tribunals has been increased; native agency has been employed to a greater extent; and though the work has largely increased, yet justice has been promptly and satisfactorily administered; fines have been more judiciously imposed, and witnesses less frequently detained than heretofore. On the other hand there has been a falling off in the despatch of business by the appellate courts, and the per-centage of acquittals in cases committed to the sessions was unsatisfactorily large.

Registration.—The number of deeds registered had increased from 61,202 to 75,107 in 1867.

Police.—The police force of this province has been divided into two distinct bodies: the Trans-Indus and the Cis-Indus police. The former was constituted on the old system, subject to the inspection only of the Inspector-General, while the controlling power was vested in the deputy commissioners of the several districts. The latter force was organized under Act V. of 1861, under the direction of an inspector-general, assisted by four deputy inspector-generals. The whole police force was 21,037 strong, including men and officers, of which 5,340 were paid out of municipal funds. The proportion to population was 1 policeman to 831 souls. The

total cost aggregated 309,760*l.*, of this 262,145*l.* were defrayed from imperial, and 47,615*l.* from municipal funds. The average cost of each policeman was 14*l.* 14*s.* 5*d.*, or about 4*d.* per head of population.

The number of offences reported by the police had increased from 56,156 to 61,062 in 1867 being 4,906 in excess of the previous year. Compared with other provinces of India and with England, the number of murders in the Punjab was great in proportion to the population, but the excess was confined to frontier districts, where the people were armed, blood feuds rife, and evasion of justice by flight beyond the border a matter of the greatest facility. Organized and professional heinous crime, such as robbery and dacoitee, was remarkably rare; housebreaking was less common than in most parts of India, and ordinary thefts far rarer in proportion to the population than in England or other provinces of British India.

The working of the police was reported as satisfactory, out of 24,039 offences 47 per cent. were brought to trial in 1867; and out of 20,285 persons apprehended, 37 per cent. were discharged and acquitted; the total value of property stolen amounted to 81,103*l.*, of which 29,410*l.* was recovered, being at the rate of 36 per cent., which was about the same as the previous year. The conduct of the police is pronounced to have been satisfactory, about 1·2 per cent. having been punished judicially and 20 per cent. departmentally during the past year; at the time of the prevalence of the cholera epidemic it was most exemplary.

The Lieutenant-Governor bears strong testimony to the superior efficiency of the new police system. Under it organized crime is kept in check in a better manner, offences are more accurately recorded, the people are less oppressed, illegal and unauthorized arrests are fewer, while reliable information of what takes place is promptly furnished to the Government.

Political.—There are 34 native states in various degrees of feudal subordination to the Government of the Punjab, in addition to which political relations exist with the independent state of Afghanistan (with which there is a treaty of alliance) and occasional communications with other states of Central Asia, besides which continual relations, friendly and hostile, are kept up with a large number of independent tribes on the north-western frontier.

Bahawulpore, a feudatory state under British management, has undergone considerable improvements since its assumption; every department of this state having been reorganized and placed on a better footing. This territory, exclusive of the desert portion, is a narrow strip of country, of an average width of 8 miles, extending for 300 miles along the left bank of the Sutlej, Chenab, and Indus rivers. Its area is 2,483 square miles, of which a little more than two-thirds are culturable. Of the cultivated area 537 square miles were irrigated by inundation canals; 168 square miles by wells; and 406 square miles by inundation from the river. There is no rain cultivation. The population has been estimated at 364,502 souls, of whom about 10,000 are residents of the forts and villages in the desert, the remainder being inhabitants of the fertile portion of the country. The produce consist of rice, millets, indigo, sugar-cane, cotton, vetches, and sesamum, which comprise the autumn crops, while the spring crops comprise wheat, barley, gram or chickpea, mustard and tobacco. The trade is carried on with Mooltan, Bikaneer, Jessulmere, Sirsa, Ferozepore, Sukkur, and Afghanistan. The total value of the export trade during 1866–67 was 90,000*l.*, while that of imports was about 120,000*l.* Among the events of political importance in this state during the past year was the sudden resignation of the Wuzeer, who was one of the first to solicit the administration of this territory by British officers, and who had been always treated with great consideration. It appeared, however, on inquiry that this official had during his tenure of office been guilty of wholesale embezzlement of the property of the state, that he was strongly suspected of being concerned in the death of the late Nawab, as well as in the murder of the late commander of the forces; and that being apprehensive of exposure, he had tried to excite disaffection by spreading false rumours as to the acts and intentions of the British Government. His presence being thus dangerous to the tranquillity of Bahawulpore he was detained in the Mooltan gaol as a state prisoner, but was subsequently released and permitted to reside at Dera Ismail Khan.

Some disaffected men of one of the State regiments, led by their officers seized a gun and endeavoured to excite a rising. The disturbance was at once suppressed

by the rest of the troops, the regiment which mutinied was broken up and the officers concerned were sentenced to imprisonment.

Chamba, another feudatory state under British management, is a mountainous tract to the north of the Kangra district, lying contiguous to the territories of Cashmere, British Lahoul, and Ladak. Its area is about 3,216 square miles, and contains a population of about 120,000 souls; within its limits flow two of the five rivers of the Punjab, the Ravee and the Chenab; and the forests near their banks are important sources of timber supply for railway and other purposes. The produce is chiefly confined to the ordinary grains, rice, millet, wheat, and barley; veins of iron, copper and lead were said to exist, and excellent slate quarries have been discovered; its soil and climate have been pronounced suitable for the growth of tea. Until the year 1863, this territory was a political charge attached to the commissionership of the Trans-Sutlej states; but at the solicitation of the Rajah, the British Government consented to depute an officer to act as his superintendent and adviser. Since the appointment of this officer many improvements have been effected, among which may be mentioned the paying off of the debt incurred by the state; the making of 500 miles of road where nothing beyond a footpath formerly existed; the construction of a suitable residence for the Rajah and other public buildings; the establishment of a dispensary and school; and the Rajah's retinue formerly extremely numerous and inadequately paid, has been reduced in number and placed on an efficient footing with increased pay. Several petty taxes, moreover, which were vexatious and objectionable, have been abolished. With the foregoing improvements the revenue, which was 7,300*l.* in 1863, has, including the sum paid by Government for the lease of the forests, increased to 17,378*l.* in five years, at the same time the ordinary expenditure has been reduced from 11,800*l.* to 10,867*l.*; this saving in expense has been obtained chiefly by the reduction of useless establishments, and by maintaining a constant check on all outlay so as to confine it within the fixed estimates.

Patowdh is a small state adjoining the district Goorgaon, and during the minority of the son of the deceased Nawab, its management was vested in the uncle of the present Nawab. But in consequence of his arbitrary conduct and wasteful extravagance the administration has been placed in the hands of the Extra Assistant-Commissioner of Goorgaon, under the general supervision of the Commissioners of Delhi; this measure has proved highly beneficial and satisfactory to the inhabitants of this territory. A summary settlement of land revenue has been economically effected, and the peasantry protected against arbitrary enhancement of taxation; transit duties have been abolished; the state debts reduced, and measures taken for the encouragement of education by the establishment of five vernacular schools.

The feudatory states not under British management are 31 in number. The only countries in which any event worthy of notice occurred were Cashmere, Putteeala, Kapoorthella, and Belaspore.

In consequence of the representations of the British officer deputed to Ladak to watch the interests of traders between Chinese Turkistan and British India, and at the urgent request of the Government of the Punjab, His Highness the Maharajah of Cashmere consented, (1), to reduce the transit duties on goods passing through his territory *viâ* Ladak to a uniform rate of 5 per cent. ad valorem; (2), to abolish vexatious cesses exacted from traders; and (3), to remove the prohibition against the transmission of the fine *Turfani* shawl wool which is abundantly produced in the countries north of Leh. These liberal measures were not adopted without reluctance, the principles of free trade being foreign to Asiatic ideas of administration, besides which the state officials in Cashmere were all more or less engaged in trade, and were personally interested in excluding competition in the field of commerce. The Maharajah has since evinced a noted change of policy and a marked desire to co-operate with the British Government in the development of trade, by making considerable reductions in the inland transit duties of his own territory, and by establishing annual fairs to be held at two places, whither he has invited merchants of all countries to assemble, promising to bestow marks of honour on those deserving of distinction for the excellence of the wares exhibited. These important reforms have already led to a large increase of trade, with a favourable opening for the remunerative export of goods in the direction of Yarkund.

The administration of Putteeala has been conducted since the death of the late ruler and the minority of the present chief, by a council of regency consisting of

four of the state officials. The arrangement has, upon the whole, proved satisfactory; during the past year in consequence of dissensions among the members of the council, one of them, Kulwunt Rai by name, who was convicted of intriguing against the interests of the state and of other misconduct, was removed from his post, and required to retire from the limits of this territory. Great hopes were entertained for the future in the great intelligence, courtly manners, and amiable disposition possessed by the young chief.

During the last two years the Kapoorthella state has been marked by unhappy dissensions between the Rajah and his two brothers, Bikrama Singh and Suchet Singh. The late Rajah, Nihal Singh, shortly before his decease in 1852, executed a testamentary document, in which he empowered the brothers already named, to claim from the Rajah, if necessary, a partition of the fief. The present Rajah protested against the recognition of the late Rajah's will, but it was accepted by Lord Dalhousie, and has been partially acted upon in the case of the younger of the two brothers, Kour Suchet Singh; the elder brother, until lately elected to remain with the Rajah, receiving a cash allowance in lieu of his portion of the estate, in consequence of the course adopted, he was permitted by the Rajah to accompany him while leading an auxiliary force to aid the British Government in crushing the rebellion of 1857 in Oude. Bikrama Singh (the elder brother) was thus enabled to earn distinction, and received as a reward from the British Government the gift of a valuable estate in Oude. In consequence of the differences which have since sprung up between Bikrama Singh and the Rajah, the former has claimed execution of the will and the separation of his portion of the estate. The Government of India, to whom the dispute was referred, decided that the provisions of the will were to be adhered to, and that unless the parties could come to terms, the separation of the brother's share was to be carried into effect. Against this decision the Rajah has appealed to Her Majesty's Government.

Belaspore is a small hill state with lands on both sides of the river Sutlej; within its limits lies a small strip of territory which at one time formed a portion of this state, but was wrested from the chief by the Sikhs, and on annexation came into the possession of the British. The restoration of this tract has long been desired by the rulers of Belaspore, but political considerations prevented compliance with their request. These difficulties having been removed by time, Her Majesty's Government have been pleased to consent to its restoration on payment of an annual tribute, in consideration of the tried loyalty of the state, and the excellence of its administration. The transfer was accordingly made in October 1867.

Among the independent states and frontier tribes in which any striking event took place may be mentioned Afghanistan. On the 18th September 1867 an engagement took place between the forces of Sheer Ali Khan and Faiz Mahomed Khan on the one side, and of Afzul Khan, commanded by his son Abdul Rahman Khan, on the other, which ended in the discomfiture of the first-named, and the death of Faiz Mahomed Khan. On the 1st October following Afzul Khan died, and his brother, Sardar Mahomed Azim Khan, succeeded. This succession was recognized by the British Government, and in December the Government agent again took up his residence in Cabool. Meanwhile Sheer Ali Khan fled to Herat. At the close of 1867-68, after making active preparations for a renewed attempt to recover his throne, his efforts were crowned with success. On the 26th August 1868 he attacked the troops of Azim Khan, and after a short encounter completely dispersed them. Azim Khan fled to the north, and Sheer Ali Khan entered Cabool in triumph on the 8th September 1868.

The frontier tribes which occupy the hilly boundary of the Punjab, on the right bank of the Indus, from Huzara in the north, to Sinde in the south, belong to two distinct races, the Pathans and the Beloochees. Both are warlike, revengeful, and predatory, and differ widely in other respects. The Pathan is a republican, having little reverence for his chief, while the Beloochee respects and obeys the head of his clan; the former is bigoted and priest-ridden, and the latter pays scant respect to the Syud or the Moulvee. The conduct of political relations with the Pathans is by far less easy, therefore, than with the Belooch tribe. By conciliating a Belooch chief the whole clan in most cases follows; but the Pathan chief is, on the other hand, generally the head of a dominant faction, and friendship with his party will make enmity with the rest, while at the same time priestly influence will be at work to thwart the conciliatory policy of years. During the past years the Belooch portion of the frontier was peaceful, a great step having been made towards the establish-

ment of friendly relations with the tribes to the north-west, by placing a few native horsemen at the disposal of their chiefs, and thus, while adding dignity to the chieftain, enabling the local authorities to exercise a beneficial influence at the head quarters of the tribe.

The state of the Pathan portion of the border was, however, less satisfactory. One tribe erected a tower outside the border, and levied tolls on passengers; but on being threatened with a blockade they desisted. Another entered British territory and burned a village, and when called upon to make apology for violation of territory, and to pay indemnity for the outrage inflicted, declined compliance, and were accordingly placed under strict blockade. Similar measures have been resorted to with respect to other tribes who have given cause for the interference of British authorities towards maintaining order and peace.

Military.—Irrespective of the frontier force employed in the Punjab, which consisted of 12,828 men of all arms, and the cost of which was 356,541*l.* in 1867–68, that portion of the Indian army under the immediate orders of the Commander-in-Chief amounted to 28,611 men, of whom 13,347 were British, and 15,264 were Native soldiers, and 130 guns. The two volunteer corps maintained their efficiency and numbers. The conciliatory policy steadily pursued by the Government in the administration of the frontier has proved most successful in putting a stop to any attempt at raids on a large scale, though as usual there have been a number of cases of cattle-lifting by small parties of marauders. In one of these attacks an officer was killed, and another severely wounded.

Marine.—The Punjab Government flotilla consisted of four steam vessels, three flats, and two barges; but one of the steamers was put out of commission. The other three made 15 trips up, and 14 trips down the Indus between them. The earnings of the flotilla have been steadily increasing year by year since 1862–63, and amounted to 8,595*l.* in 1867–68, of which 7,549*l.* were *pro primâ* the nominal freight of Government stores conveyed. The down freight had somewhat diminished, owing to the depressed state of the trade, but the demand for tonnage for the up trips was increasing, and often larger than could be met. Little doubt was entertained of a considerable trade being developed if regular communication was kept up, and continued efforts made to supply steamers suitable to the navigation of shallow waters.

Finance.—The total civil receipts of the Government of Punjab in 1867–68 was 3,283,107*l.*, and the disbursements 1,230,655*l.*, against 3,253,952*l.* and 1,184,444*l.* respectively in 1866–67; these figures do not include those of the military and public works department. It will thus be seen that the revenues increased by 29,155*l.*, and the expenditure by 46,211*l.*, and that the surplus of the year amounted to 2,052,452*l.*, which was less than that of the previous 11 months by 17,056*l.* The receipts from local funds also increased from 269,382*l.* to 286,425*l.* in 1867–68, while the expenditure was 302,810*l.* against 256,323*l.* in the preceding year. The steady increase in the income from municipal funds was a satisfactory proof of the growing wealth of the people.

Forests.—The forest department in the Punjab consisted of a conservator, two deputies, and ten assistants, with suitable establishments. The area under its control has been divided into six divisions, viz: Jhelum, Chenab, Ravee, Beas, Sutlej, and Canal, in addition to which another has been constituted for superintending the arrangements for fuel plantations in the plains. The total expenditure from imperial revenues in 1867–68 amounted to 31,427*l.* The working of the department was getting into a much more thorough and complete system, attended with better results. Owing to greater care, though only 1,569 deodars were felled as compared with 5,060 in the previous year and notwithstanding the expenditure of 4,560*l.* on fuel plantations with no immediate return, yet the aggregate money return of the deodars sold (59,652*l.*) bore satisfactory relation to the expenditure of the department.

Public Works.—The aggregate expenditure on account of public works in this province, exclusive of railways and forests, amounted to 625,142*l.* from imperial funds and 184,366*l.* from local sources in the past year; of this the military works still formed the most important class of works being carried out by this department, and involved an outlay of 360,897*l.*, that for civil buildings and works was 57,045*l.*, while the outlay on agricultural works, such as canals, irrigation purposes, &c. came to 56,618*l.*; the expenditure on communications was 177,018*l.*, from imperial and

108,157*l.* from local funds; and on miscellaneous public improvements it came to 59,771*l.*

Trade.—The table in the margin is given with a view of showing the direction of both the import and export trade of this province with other parts, from which it will be seen that the latter is considerably more than the former in value, while the total quantity was less, the weight of goods imported having been about 90,027 tons, against 80,572 tons exported. The principal articles imported consisted of salt, grains, sugars, rice, fruits, oil-seeds, metals, cotton and cotton cloths, ghee, liquors, spices, and tobacco, while the exports were chiefly in sugars, salt, rice, grains, cotton and cotton cloths, metals, oil-seeds, oils and ghee.

	Imports.	Exports.	Total.
	£	£	£
Cis-Sutlej Independent States	276,739	316,316	593,055
Kashmere territories and countries on north-east frontier.	79,057	45,990	125,047
Cabul and countries on the north-west frontier.	159,220	142,968	302,188
Rajpootana and Central India	250,878	1,636,884	1,887,762
North-West Provinces	401,122	179,675	580,797
Bengal	125,531	15,042	140,573
Bombay and Sind	384,543	285,794	670,337
Other places	52,021	11,057	63,078
Total	1,729,111	2,633,726	4,362,837

The internal trade, that is to say, the trade of the principal towns, aggregated 7,414,545*l.*; on a further analysis of the returns received it would appear that the value of the goods sent from Delhi, Amritsir, and Umbala was greater than the value of those received; while on the other hand the imports into Mooltan, Bowannee, Peshawur, Loodiana, Julinder, and Lahore, far exceeded what was sent out from those towns, in quantity as well as in value.

Education.—There has been a falling off in both the number of schools and scholars during the past year as compared with 1866–67, the decrease having chiefly occurred in the female and village schools owing to the prevalence of sickness during the first half of 1867–68. There were during the past year 1,912 government, and 801 grant-in-aid, institutions, besides 4,888 indigenous schools; the average attendance of pupils at the first was 64,631, at the second 15,291, and at the third 49,947, giving a total of 129,869 students, which was computed at 1 to 135 persons relatively with the population. The amount placed at the control of the Director-General of Public Instruction from imperial revenue had increased from 59,260*l.* to 62,133*l.* and from local funds 37,832*l.* to 38,661*l.*, of this latter sum the increase derived from private contributions to grant-in-aid institutions amounted to 3,740*l.* as compared with 1866–67. The expenditure for the past two years, however, was 94,908*l.* in 1866–67, and 94,396*l.* in 1867–68.

There was a great improvement in the success achieved by Punjab students in passing the Calcutta University examinations. During the past year four out of seven candidates from the colleges in Punjab passed successfully for the B.A. degree; and five out of eleven the first Arts examination, while 44 out of 73 succeeded in the entrance examination, of which number 20 were educated at private institutions.

Medical.—The dispensaries of the Punjab have been placed on a system of regulated grants-in-aid, or in other words, the assistance of Government has been granted conditionally upon the contribution of a proportion of their cost from local sources, local committees having been appointed for the management of the same. The benefits derived from this measure will be best exhibited in the marginal statement. Thus, while the dispensaries have been considerably extended, the revenues of the State have been relieved, as compared with the past two years, so rendering a larger sum available for a similar support to other establishments. Endeavours were being made to create an endowment fund, to be invested in Government securities, so that each dispensary may become eventually a permanent institution, independent of periodical charity for support.

	1865.	1866.	1867.
Dispensaries	55	69	82
Patients treated	342,277	377,754	439,785
	£	£	£
Income	10,175	14,042	14,817
Contributions from Government	7,288	7,884	6,442
„ „ local funds	2,265	4,045	6,272
„ „ private subscriptions.	622	1,976	2,102

The gradual increase of these institutions in the Punjab is looked upon as most important, not only in a sanitary but in a political point of view, which is nowhere more striking than on the immediate frontier, where they constitute one of the best

available means for conciliating and humanizing the lawless tribes beyond the border. Hence the especial encouragement which has been given to such establishments for many years past, in favourable localities on the north and west. Thousands of the members of the different border tribes are thus annually enabled to participate in the benefits of European medical science, and they freely offer themselves, it is said, as patients in these dispensaries, where they are not only treated, but, if necessary, fed at the public expense. With this rapid extension, however, a great difficulty is beginning to be experienced in the supply of efficient medical officers, to meet which, some 29 youths, chiefly sons of native practitioners, are now qualifying themselves in the Lahore medical school, the cost of their education being borne by the funds of the district or municipality from which they are sent.

The result of the vaccine operations showed a falling off, as compared with the previous year, the numbers having been 248,094 and 196,566 in 1866 and 1867, respectively; but of the cases 95·01 per cent. were successful, against 94·74 in 1866, and of those vaccinated at dispensaries the per-centage of successful cases was 75·7, against 72·3 in the previous year. The falling off in the number operated on was attributed by the Superintendent-General to the difficulty of supervising the working in a large district like Rawul Pindee, where there is a sparsity of population, and to the fact that several dispensaries had been relieved of their vaccinators, their places being supplied by men from the regular establishment. Though opposition to vaccination still continued to exist in some of the large cities of the Punjab, in the rural districts its advantages were becoming more gradually known and appreciated by the people. The cost of vaccination was about 6*d.* on the average in each case.

Central Provinces.

Physical Outline.—The Central Provinces first assumed their present title under a resolution of Government, dated 2nd November 1861, and were composed—of the province of Nagpore and its dependencies, which were annexed in March 1854;—of the Saugor and Nerbudda territories, formerly part of the North-Western Provinces;—and of Sumbulpore and its dependencies, which were a part of the Lower Provinces of Bengal until added to these provinces by a resolution of Government, dated 30th April 1862.

The Central Provinces are bounded on the north and north-west by the Indore Agency; on the south-west by Berar and Hyderabad; on the east by Jeypore and the Lower Provinces of Bengal. The provinces are named Nagpore, Nerbudda, Jubbulpore, and Chutteesghur, besides which there is a large cluster of native states on the eastern frontier. Their extreme length from north to south may be computed at 410 miles, and their breadth from east to west at 550 miles. They extend from 18° to 24°, north latitude, and from 76° to 85°, east longitude. The Sautpoora hills, which run from east to west, and to the south of the river Nerbudda, divide this territory into two nearly equal parts. The districts on this range possess the better climate, and are of a more interesting character, while those below, which constitute Nagpore proper, have a less desirable climate, but are the greatest, and the most capable of development. The north-west portion, including the Saugor and Dumoh districts, is an undulating or hilly country, diversified by the off-shoots of the Vindyan range on the north of the Nerbudda river. The range is prolonged north-eastward as far as the Ganges by the Kymore Hills. A branch of the East Indian Railway proceeding from the main line at Allahabad on the Ganges crosses the Kymore range to form a junction at Jubbulpore with the Great Indian Peninsula Railway from Bombay. The northern part of the Central Provinces is intersected by this line of railway. The central part is united with the Great Indian Peninsula Railway by a branch line to Nagpore, the capital. The best opium is produced in the districts among the Sautpoora hills, where the river Taptee has its source. The districts constituting Nagpore proper are separated from Berar and the Nizam's dominions by the river Wurda, along the left bank of which is situated the great cotton field of the Central Provinces. The next great division is the valley of the Weingunga, which flows nearly parallel to the Wurda. Towards the north it is broad, generally cultivated, and often rich. On the right bank opposite the capital, Nagpore, it reaches out to a great breadth till it is separated only by some hilly

country from the valley of the Wurda. Here is the great plain of Nagpore stretching over 40 miles of flat unbroken cultivation of wheat and maize. On the opposite side of the river the country is more broken or undulating, and but partially cultivated, chiefly by means of irrigation from tanks. These tanks are so numerous, and some of them so large, being many miles in circumference, that this tract is called the lake region of Nagpore. Southward this valley becomes narrower, but continues rich, abounding in rice cultivation, and highly irrigated, and is the rice field of these provinces. Proceeding eastward, the plain of Chutteesghur is a tract considered one of the finest and most promising in these provinces. Ryepore, is the principal station in the district. Further southward the country becomes mountainous. The two rivers, Mahanuddy and Seu, which run northwards almost parallel to one another, intersect the plain, and the lands situated between them are remarkably productive. Wheat and rice are grown in abundance, and the harvests have so increased as to justify Chutteesghur being called one of the great granaries of India. To the eastward lies the Sumbulpore district in the valley of the Mahanuddy, and its feeder, the Eebe. A few miles below Sumbulpore the Mahanuddy is navigable all the year round right away to the sea. The valley of the Eebe is rugged and narrow. The natural products consist of cotton, sugar-cane, and rice, and there is a complete system of tank irrigation.

The south-eastern portion of the Nagpore province is a great wilderness stretching away from the valley of the Weingunga, down to the Godavery on the south, and almost to the range of the Eastern Ghaut Mountains that overhang the littoral districts of Bengal and Madras. It is divided into two portions by the Indrawatty river, which, rising in the Eastern Ghauts, runs in a south-west course to join the Godavery. That to the north of the Indrawatty is entirely uncultivated and uninhabited. The whole tract is believed to abound in hill and wood, and to be malarious, even deadly, in climate. In some places it is known to contain valuable and extensive forests. In the hills to the north of it the river Mahanuddy has its source. The lower portion to the south of the Indrawatty if not quite so desolate is still very wild, and its climate also malarious and unhealthy. This river is neither navigated nor navigable, and does not contribute much to agriculture. The country is described as an interminable and primeval forest, with a sprinkling of small villages with patches of cultivation. In the Eastern Ghauts, near to Jeypore, rises the river Sendree, which, after pursuing a southward course, joins the Godavery. It resembles the Indrawatty in character, though on a smaller scale, and is partially fringed with forests, but not navigable. The remaining strip of territory lying along the left bank of the Godavery is the district of the same name. A fringe of villages and cultivation lies along the river bank, but in the interior the country pretty much resembles that just described. The general physical features of the Central Provinces may thus be described to be vast in geographical area, and of great variety in details, sometimes flat and fertile, but generally wild and rugged, abounding in hills, forests, and brushwood, sparsely populated and scantily cultivated for the most part, but occasionally opening out into long and broad tracts covered with crops, and thickly inhabited, rich in various resources, and capable of further development.

Languages.—From the fact of the whole of these provinces having been under Mahratta rule, in Nagpore the manners and customs, the language, the ideas and associations of the people, are all Mahratta, both among high and low, and in town, country, and village. This part of the country, therefore, much resembles Berar, and the Mahratta country of the Bombay Presidency. But in the rest of these provinces the Mahrattas remain distinct as a governing class; and although everywhere indications of Mahratta influence are visible, yet with the mass of the people neither the language nor the associations are Mahratta. In the eastern part of Nagpore and in Sumbulpore the Hindee language prevails with some admixture of the Bengalee and Oorya languages: to the south, in the districts bordering on the Godavery, the Teloogoo language is more general: to the north in and about the Sautpoora range the Hindee and Urdu languages prevail; and in the extreme north above Saugor there is much affinity with Bundlecund and Hindostan. Throughout all the hill regions and in the more remote districts the Gondee dialect prevails, and there are many wild tracts where this dialect alone can be understood. In general

terms, however, Hindostanee is the lingua franca now understood with few exceptions, even in the villages throughout these Provinces.

Area and Population.—When the Central Provinces were formed in 1861 there existed no reliable statistics of the population. In 1863, however, the total population was estimated at 8,500,000. Subsequently a census was taken on the night of the 5th November 1866, by permission of the Government of India, which passed off quietly and without creating any feelings of alarm, the people themselves affording every assistance to the enumerators in their task. The agency employed consisted of the several subordinate district officials belonging to the fiscal settlement, police, forest, and educational departments, the European officers directing the general arrangements and supervising the work in the principal towns; the result shewed that the total population of these provinces amounted to 9,104,511, and the area to 114,718 square miles, which, as compared with the United Kingdom, was nearly double the size of England and Wales together, and the number of the people a little less than half of England, and more than Scotland and Ireland combined. The relative density or sparseness of the population stood at 79 persons to the square mile. If the feudatory chiefships, which for the most part are wild and thinly-peopled tracts, be excluded from the computation, the average rate for British territory will be 97 persons to the square mile. In these provinces, out of 114,718 square miles of territory, only about 24,959 square miles were cultivated, the remainder, 89,759 square miles, being waste, hill, and forest. If the population be compared with the cultivated area alone, the average of these provinces will be 365 persons to the square mile of cultivated land, or one person to every 1 acre, 3 roods, 1 pole. In the North-West Provinces the average is stated at 800 persons to a square mile of cultivated land, or one person to every 3 roods and 8 poles under the plough. The tract where the population was densest was the subdivision of Nagpore, the average being 291 to the square mile; but this tract contained the two important cities of Nagpore and Kamptee. The most populous parts were those very tracts which have always been regarded as the richest and most cultivated, namely, the valley of the Wurda, the valley of the Weingunga, and the Nerbudda valley. The averages of these tracts, as shown in the margin, though certainly low in comparison with the more thickly-peopled districts of other parts of India, where the average ranged from 400 to 700 souls to the square mile, were yet reported to be on a par with those of the medium districts in the Punjab and of the less densely peopled districts of Bombay and Madras. In the thinly peopled districts of the Central Provinces the population becomes more sparse, the averages being for Chanda 54 to the square mile, Mundla 36, and the Upper Godavery only 24. In the whole of the Central Provinces there were 29,223 inhabited villages, and the average number of inhabitants to each village about 212 souls. Besides the villages there are 712 towns containing from 1,000 to 5,000 souls; 31 towns containing from 5,000 to 10,000 souls; 8 towns containing from 10,000 to 50,000 souls; and 3 cities containing over 50,000 inhabitants. The total number of males of all ages in the Central Provinces (exclusive of feudatory chiefships) was to the total number of females of all ages as 4,100,190 to 3,910,679, or as 51·2 to 48·8. But the number of adults over 14 years of age was almost the same for both sexes, being 2,405,662 male to 2,408,340 female adults. Male infants under 14 years of age were to female infants as 53 to 47. The relative proportion between males and females was diverse in different districts, though the alternations were said to be in precise accordance with the general opinion among natives of these parts.

Districts.	Souls to the Square Mile.
Nursingpore -	176
Nagpore - -	172
Wurda - -	144
Bundara - -	134
Jubbulpore -	138
Saugor - -	127

The three great divisions of the population may thus be classified:—Hindoos, 6,864,770; Mohammedans, 237,962; Gonds and other hill or aboriginal tribes, 1,995,663. Besides these there were 6,026 Europeans and Eurasians, and about 90 Parsees. The most important agricultural clans are to be found among the Hindoos, among whom the Rajpoots are the chief landholders, and are mainly to be found in the Saugor and Nerbudda country. The Koonbees or Koormees form the backbone of the agricultural community in the Nagpore country. The

Lodhees belong mainly to the Nerbudda valley; a large and flourishing colony also exist in the Bundara district. The Chumars are almost entirely confined to the Chutteesghur country. The Powars hold the best rice lands in the upper valley of the Weingunga. Among the other tribes may be mentioned the Teylees, Korees, and Ooriyas, the last-named an interesting people exclusively to be found in Sumbulpore; they are quiet and thrifty, and evince an extraordinary thirst for education.

Among the non-agricultural castes the Koshtees, or cloth weavers, are specially noticeable. They number 101,590 souls, and are peculiar to the Nagpore country, residing mainly in towns and cities. The Dhers, who are the village drudges, spin and weave, and are sometimes employed as farm-servants, and do duty as day-labourers all over the country. They number 566,438 souls, and are to be found in every town and village of the country, except in the hilly tracts where Gonds and other hill tribes predominate.

Of the aboriginal tribes, the Gonds are by far the most numerous, amounting in all to 1,469,355 souls. They are to be found in every district in these provinces; but mostly in the hilly and wooded tracts. They bear the largest proportion to the rest of the population in the Sautpoora hill districts. Of the other hill tribes the Bheels, numbering 25,454 souls, are to be found in Nemaur only. The Korkoos, about 39,114, are confined to Baitool and Hoshungabad. The Marias are to be found in the eastern wilds of Chanda, in Bustar, and in the Upper Godavery district; they number 36,663 souls. The Bygars numbering 16,698 souls, principally inhabit the wild tracts of Mundla. Other minor sub-divisions consist of Sobras, Pabs, Binswals, Kauras, Koles, Khonds, Siwarees, and Hulbas.

The population classified according to profession may be thus stated, agricultural 4,879,431; commercial and trading, 204,950; artizans, 844,592; and the menial and miscellaneous at 2,532,839. Hence it will be seen that in these provinces 57 per cent. of the population are engaged in agriculture, while in the Punjab the proportion is only 56, and in the North-West Provinces 64.

Administration.—By the resolution of the 2nd November 1861, already referred to, the Central Provinces were ordered to be administered under what is known as the non-regulation system, the same as that which has obtained in the Punjab and Oude. Under the supreme Government of India the administration has been therefore conducted by a chief commissioner with the usual secretariat staff; subordinate to him there were a judicial commissioner, or minister of justice and chief judge in all branches; four commissioners, each being judge of appeal and sessions, and superintendent-general of a circle of districts; and 17 deputy commissioners, each being judge in civil causes, as well as magistrate and collector of a district. The regular subordinate judicial staff consisted of 15 assistant commissioners and 18 extra assistant commissioners. The country thus to be administered was distributed into five divisions with 17 districts in all. In 1863–4 the Saugor and Jubbulpore divisions underwent a change with a view to further efficiency and convenience. The Saugor commissionership was abolished and that of the Nerbudda created; the Saugor and Dumoh districts became, therefore, added to the Jubbulpore division, while that of Chindwarra and Nursingpore were added to the Nerbudda commissionership. In addition to which the British portion of the Nemaur district, heretofore under the control of the Governor General's agent at Indore, was transferred to this last-named division of these provinces.

During the year 1866–67 it was found necessary to effect another change so as to strengthen the judicial and executive machinery without altering to any extent the already existing administrative arrangements or adding to the number of the officers. Accordingly in February 1867, a new district called "Balaghat" was constituted, comprising portions of the hill country formerly appertaining to the Mundla and Seuni jurisdictions, and a slice of lowland country out of the Bundara district. In the following year the successful measures adopted in this new district resulted in a large increase of land revenue as compared with former years, arising from the fact of 75 acres of waste land having been taken for cultivation by landowners on clearance leases, from which considerable revenue will be derived hereafter. Another sub-division was created in 1867–68, in the Chanda district, on the left bank of the Weingunga river, containing an area of about 3,500 square miles. This tract is held by numerous Gond chiefs, and the revenue paid to Government was not large, being more or less covered with

forest. Very little had been done for its moral and material improvement as compared with other parts of this province, in consequence of its distance from the head-quarters of the Chanda district, as well as from its present unproductiveness.

Judicial.—A government pleader has been sanctioned by the Government of India, and the appointment given to a member of the local bar, a native of the Mahratta country. In consequence of Naib Tehseeldars having been entrusted with powers to try civil causes of small amount, a larger share of petty civil litigation has fallen to these subordinate officers than was contemplated; the attention of Government has, however, been called to the fact.

A further increase in litigation has to be noticed, being 6 per cent. over the preceding year. The value of property involved has fallen from 487,997*l.* in 1866 to 300,168*l.* in 1867; giving an average value of each case for the whole province at 6*l.* 2*s.* against 11*l.* in 1866.

The average cost of suits was materially affected by the fluctuation in the total value of property contested. Thus in 1865 it was 9 per cent., 6½ per cent. in 1866, and with the decline in value accompanied by increase in the number of suits in 1867 the costs rose to 12 per cent. The average duration of contested cases was 14 days, and 12 days in uncontested cases.

	1866.	1867.
Cases struck off in default	15 per cent.	18
„ decided ex parte -	11 „	10·3
„ by confession - -	34 „	34·7
„ by compromise -	8 „	12·4
„ by arbitration - -	1 „	0·6
„ on merit - - -	23 „	22·1

The accompanying comparative statement will exhibit the mode in which cases were disposed of in the different courts for the past two years, the proportions assimilating very closely, excepting in cases struck off in default and those decided by compromise or consent, the highest per-centage of the former cases having been in the small cause court of the town of Nagpore.

The number of appeals on the files of the appellate courts has increased by 38. Of the whole number, 39 per cent. were upheld, 35 per cent. modified, 8 per cent. reversed, and 5 per cent. remanded, the remainder having been withdrawn or struck off on default. Very little disparity is reported to exist in this class of civil justice as compared with the past year. The average duration of appeal trials was 16 days in the lower courts and 42 days in the higher courts.

	Number of Appeals.
1866 -	1,207
1867 -	1,245

Still further improvement continued to be noticed in the prompt disposal of miscellaneous business before the courts of this province. There were 27,942 applications for execution against 21,050 in the previous year; of which 21,132 were disposed of on their merits, 5,120 struck off on default, leaving 1,690 pending at the close of the year.

A satisfactory diminution of crime appeared to have taken place during the past year, the aggregate number of cases being 3,416 less, and this decrease is the more appreciable, since it is reported to have occurred under the graver classes of offences cognizable by the police.

	1866.	1867.
Cognizable cases -	23,797	20,208
Non-cognizable cases	11,359	11,532
Total -	35,156	31,740

Under the head of minor offences there has been heretofore a steady increase, but a considerable decrease took place under this class of offences during the year under review, the reported cases fell from 18,243 in 1866 to 13,109 in 1867, and was attributed to the abundant harvest, and in a measure to the increased efficiency of the police.

Of the number of persons brought to trial, 24,156 were disposed of by honorary and subordinate magistrates, 12,632 by full power magistrates, 2,824 by chief magistrates of districts, 571 by gaol magistrates, and 377 by the sessions courts. Ten additional honorary magistrates were appointed during the year, thus increasing their number from 62 to 72, who disposed of 4,898 cases against 4,464 in the previous year. The honour and dignity of the office were duly appreciated, and the people were satisfied with the decisions given by them. Certain titles have been

	1866.	1867.
Number of persons under trial	41,905	40,560
Remaining at close of the year	209	161

conferred on some of these native magistrates by the Government of India, and complimentary letters with dresses of honour granted to others.

The results of the past years judicial administration has thus been summarized. A decrease of 9 per cent. in reported crime, a considerable decrease in heinous crime, especially in dacoity, a decrease of 28 per cent. in minor crimes, a slight improvement in the proportion of persons convicted to those acquitted, while the average duration of cases and the nature of punishments remained as before.

Police.—A further reduction has taken place in the strength of the police force of these provinces to the extent of 164 men, with a corresponding fall in their cost of 16,101*l.*, arising from reductions in the number of jail guards, and by the payment of compensation on account of dearness of grain having generally ceased during the past year. The cost of each policeman was 13*l.* 15*s.* 7*d.*, against 15*l.* 6*s.* 6*d.* in the previous year.

	1866.	1867.
Strength -	8,974	8,810
Cost - -	£ 137,525	£ 124,424

A special police was organized during the past year for the protection of that part of the Great Indian Peninsula Railway which passes through these provinces; the system has worked well and given satisfaction to the railway officials.

The results of the operations of the police were pronounced to be favourable, excepting the one important matter of detection, from the fact of its not having been sufficiently cultivated. Efforts were being made, however, to increase the detective talent of the force, though it would take some time to substitute a different system for the native methods heretofore in practice.

Registration.—Consequent on the introduction into these provinces of Act XX. of 1866 providing for the registration of assurances, a new and separate department has been formed for carrying out the system therein enjoined. The existing districts and tehseels were declared to be districts and sub-districts respectively for the purposes of the Act, and the senior assistant-commissioner of every district was appointed registrar within the limits of his jurisdiction, while every tehseeldar was made sub-registrar of his sub-district or tehseel. A general registry office was also established at Nagpore.

Season and Produce.—The year 1867-68 has been characterised in the greater part of the province by considerable disturbance in the seasons. The rains fell with almost unprecedented force and copiousness, exceeding the average return of 45 inches by 15 inches. The cotton crops suffered severely,—where the young plant escaped the downward pressure of the rain, it was often swept away by the force of the subsequent floods; but its destruction was in many places compensated for by the excellence of the rice harvest. Though cotton is the more valuable crop of the two, it did not occupy above 5 per cent. of the cultivated land of the province, while the rice area was nearly six times as large. The wheat harvest promised well, but it was partially withered by the blight which generally followed on cloudy damp weather during ripening time, and which was the most constant enemy of the winter cereals in these provinces. The crops suffered most in the northern parts of the province. In tracing the history of past famines it was found that only one season of scarcity (1844-46) has been recorded as occasioned by drought in the northern portion of the province.

Revenue.—The demand for the year on account of land revenue was 435,493*l.*, against 646,170*l.* in the previous year. It was mentioned in the last report that the demand for the year 1866-67 included the collections of about 50,000*l.* of a deferred instalment of the revenue in some districts; but there was still a considerable deficiency, which has thus to be explained. In the year under report it was again decided, with the sanction of Government, to defer in 11 of the 19 districts the collection of the second of the two revenue instalments from 15th February to 15th April, so as not to inconvenience the agriculturists by fixing the date of collection so near the close of the spring harvest as February, but to give them the amplest time to realize the profits of their farm produce, which the postponement to the 15th April was calculated to afford. Some 180,000*l.* thus fell out of the accounts of the official year ending 31st March 1868 into those of the next year, and were so far only a nominal deficiency in the year's income. If, therefore, for the sake of comparison, the 50,000*l.* above mentioned be excluded from the demand for the previous year, as not appertaining to that year, and the 180,000*l.* be added to the past year's demand, it will be found that there is an actual excess of 20,000*l.* in the demand for 1867-68, which was due to increases

obtained by the settlement still in progress. Of the actual realizable demand of the year 434,067*l.* were collected, besides 2,154*l.* on account of uncollected outstandings of land revenue of former years. The balances at the close of the year were accordingly very small, being 1,422*l.* on account of the current demand, and 734*l.* on account of previous years.

The settlement operations in these provinces were gradually being completed; there remained but five districts at the close of the year in which re-settlement was being undertaken. As many as 6,816,339 acres had been measured in block and mapped during the past year, and the aggregate fiscal results of the settlement up to the end of the year showed an increase from 534,553*l.* to 599,850*l.*, exclusive of feudatories, rent-free, and quit-rent tenures, the general rate of enhancement having exceeded 12 per cent.

The total imperial revenues for these provinces amounted to 864,532*l.*, as compared with 1,032,055*l.* in the previous year; this falling-off was only apparent, as has been already explained.

Perhaps the most important measure which has been brought about is the enlargement of the rules for the admission of peasant proprietorship. As the basis of the present land revenue settlement in the Central Provinces has been the award of proprietary right to the person or persons most entitled to it by prescription or other favourable circumstances, the State has clearly not tied itself down to the recognition of the rights of any single class to the exclusion of others. The system of the country and the hitherto conservative character of British rule in these provinces have mainly favoured the claims of the farming (Malgoozar) class; but it has always been admitted that their rights were not so far superior to those of old cultivators as to make it justifiable to place the one class in complete subjection to the other. An even further recognition of this principle was contended for, and after some discussion the Government of India decided that measures should be taken to secure the position of old ryots on a footing unassailable by the proprietors of their villages.

Education.—The most striking instance of the progress of existing institutions, has been the movement in favour of education in the Ooriya district of Sumbulpore. This is an inland tract unconnected with the outer world by made roads, and half surrounded by wild independent chiefships. Yet in six years its rude people have so imbibed a taste for civilization that for four schools with 95 scholars, there are now 249 schools numbering 13,276 scholars, and independently of the educational cess at 2 per cent. on the land revenue, the subscriptions of the agricultural classes amounted in 1867–68 to 2,692*l.* The proportion of the population under education was nearly 3 per cent., or three times greater, it is believed, than that in any other province of India, and the zeal with which parents welcome education for their children and flock to their examinations is even more remarkable than the numerical results shown above. The same people have shown an equal appreciation of the benefits of vaccination, contrasting in a marked manner with the apathy shown in other parts of the province. In the first year's operations of the regular vaccination department, the Superintendent-General with a full staff of vaccinators only succeeded in vaccinating 4,767 persons, while the civil surgeon of Sumbulpore in the course of six months in 1867 effected 4,321 operations, of which 4,292 were reported as successful, with the aid of two vaccinators only.

During the past year a scheme was under consideration for giving a separate education to the Sutnamee Chumars. This curious and interesting people numbered from 300,000 to 400,000 souls, of whom by far the greater number belong to the Ryepore and Belaspore districts of the Chutteesgurh division. The bulk of them are landholders and agriculturists, and only 6,659 were returned in the census lists as following the hereditary avocation of leather workers. Their tenets are advanced, and include among principles the abolition of caste and idolatry, and in the regulation of daily life the prohibition of smoking and drinking spirituous liquors. Among positive duties charity, in all senses of the word, and prayer are especially enjoined. The Chutteesgurh division, is the least advanced part of this province, and therefore requires much to be done in all departments. Intellectual education is necessarily a primary object, and an interesting experiment in the direction of more practical training has been tried with some success at Ryepore, the capital of the division by the establishment of an industrial school, which commencing with a small grant from local funds has

now become almost a self-supporting institution. The results of little more than a year's operations have been that 167 carpenters, 30 blacksmiths, and 156 potters have been educated sufficiently to earn a livelihood.

The demand for skilled labour is, however, so unexpectedly great that the original object of the school, viz., the supply of rough artificers for villages, has not as yet been fully attained, as the apprentices naturally prefer to take their labour to the better paid markets in towns and on Government works. The example thus set at Ryepore has been held out to the other districts of the Central Provinces.

The number of schools in these provinces increased from 1,570 to 1,645 in 1867–68 while that of the pupils rose from 58,137 to 67,490, and their average daily attendance from 38,234 to 44,112. The total expenditure increased from 39,073*l.* to 45,216*l.*; of this last sum 26,748*l.* was defrayed from local funds against 23,427*l.* in the previous year. The per-centages of improvement were, in respect of schools, 4·8; scholars, 16·1; daily attendance, 18·0; expenditure, 15·7; and share of expenditure from local sources 14·1. The cost of educating each pupil was 13*s.* 5*d.*

Political.—Among the chiefships attached to these provinces the most important group politically were those of "Gurjat," lying to the extreme east of the territories under the control of this administration. Though poor in revenue they have always, from their remote position, maintained a certain weight and vantage ground, which they took care to consolidate by confederating themselves under a common head, the Maharajah of Patna, some six centuries ago. Two or three hundred years after, a younger branch of the Patna family acquired the small principality of Sumbulpore, and by degrees drew away from the elder branch the allegiance of many of the Gurjat chiefs. But, except for this semi-feudal subordination, the latter were virtually independent princes until the ascendancy of the Mahrattas, who imposed tribute on them.

On the British accession in 1818 the status of the Gurjat chiefs was accepted and maintained with no change, beyond the commutation of their tributes from the Nagpore into the British currency. Since then the Sumbulpore State has lapsed, and of the other States some have been placed under the political superintendence of the Chota-Nagpore, and Cuttack authorities, and some have been attached to other districts in these provinces, or have merged into ordinary chiefships; so that the main group under Sumbulpore is now only seven in number, including Kharonde, a large feudatory state not belonging to the Patna or Sumbulpore group. These have continued to pay tribute to no greater extent than that fixed by the Mahrattas, although the value of land here, as everywhere else in India, has greatly risen, especially of late years. From their long immunity an idea had grown up among them that their tributes were immutable. But as no such right had ever been conceded to them, and as the increasing value of their territories was due entirely to British protection and enterprise, it was signified to them, with the sanction of the Supreme Government, that the dominant power, while guaranteeing them a semi-independent position, did not the less hold itself entitled to a just contribution to the general revenues. Their tributes have been revised more with a view to assert the rights of the State, than to increase its revenues. Indeed the highest sum now levied from any of these chiefships amounts to 500*l.* annually. The net result of the revision has been a decrease of 2·6 per cent. The further progress made in demarcating disputed boundaries in these chiefships during the past year have been unavoidably retarded by the serious illness of the local officer.

An unavoidable event, which has engrossed much attention during the past year, has been the Khond rising in the Bamra (Bombra) State. The Bamra Rajah, by caste a Rajpoot, is one of the Gurjat feudatories, ruling a territory of about 7,000 square miles in extent, of which, however, not more than one-fourth was under cultivation. He is said to be intelligent and well disposed, though wanting in resolution. Among his subjects are a Khond colony, some 1,200 in number, occupying about 40 little villages scattered over a wild hilly tract. Like the generality of their race they appear to be an independent people, impatient of all control; and it is alleged that within the memory of man every one of their chiefs has been successively in arms against the Rajah of his time. The present dispute originated in 1863, and was primarily occasioned by an attempt on the part of the Rajah to execute a decree of the Sumbulpore Civil Court

against Kurpa Sindoo, the Khond chief. At that time feudatory rights had not been conferred on the Rajah, and his territory was still under the jurisdiction of the British courts. Although the Rajah made no very active efforts to enforce his orders, and the execution of the decree was in fact merely nominal, Kurpa Sindoo seems to have been not unwilling to find a pretext in it for further turbulence; for, after three years' passive show of authority on the one side, and negative resistance on the other, the Khond chief at last broke out in open revolt, and commenced to plunder the Rajah's plain villages. The depredations of Kurpa Sindoo by degrees became so serious that the Rajah applied for aid. A police force was accordingly granted to him, but he showed so little resolution, and indeed took so little action of any kind, that his allies followed his example, and kept themselves out of harm's way. At last the acting local authority went to the spot in person, and though he failed to obtain an interview with Kurpa Sindoo himself, he succeeded in detaching from their chief many of his followers, and in inducing the inhabitants of several Khond villages to settle temporarily in British territory. This visit had also the advantage of dissipating an impression which had been disseminated by persons interested in keeping up ill-feeling, that both the chief and his people had forfeited all hope of pardon, and would be handed over to the mercy of the Rajah. Measures of conciliation having thus lightened the work to be done, coercion was employed to complete the subjugation of the country. The seizure of the families, and of the grain stores of those who still held out, at once brought them to reason, and the latest accounts showed that the rising had been thoroughly put down, and that Kurpa Sindoo, with one or two followers only, was a fugitive among the hills.

Negotiations were still pending with His Highness Holkar, regarding the northern frontier of the Nimar district. It was considered an object that the line of division between British and Indore territory should be marked by the Nerbudda, and opportunity was taken of the pending negotiations for Holkar's Deccan possessions to attempt arrangements for rectifying this portion of his frontier. So far, His Highness had on his side obtained sovereign rights over a flourishing tract north of the Nerbudda, including, among other advantages, large ironworks with suitable plant, and a considerable tract south of the river; while the Government on their side had acquired proprietary right in his Deccan possessions, with the important concession of abolition of the transit dues on the Agra and Bombay road. And as the sums leviable from the British territories were calculated on the basis of revenue, while the returns from Holkar's lands were in fact rents, it would seem that both politically and financially he had profited by the transaction, except in the one important respect of the abolition of transit dues, which, though no pecuniary gain to the British Government, was undoubtedly a loss to him, and which it was, perhaps, worth an even greater sacrifice on their part to secure. The important question of the settlement of the boundaries had scarcely been advanced by the exchanges of territory. As matters stood at the close of 1867–68, the liberal spirit shown by the British Government would seem to have encouraged the Durbar rather to make further demands than to adjust existing differences. Operations in the Settlement Department especially have suffered from the want of reciprocity on the part of the Durbar officials. These matters were still under the consideration of the Central India Agency.

The only other important pending boundary dispute has been that between the Bustar and Jeypore Rajahs, for the settlement of which Commissioners were appointed by the Government of India. The disputed boundary occupies about 100 miles of a very wild country, including a large tract of almost pathless forest. Of the two chieftains the Jeypore Rajah is the most powerful, and he would appear to have been making gradual encroachments on the frontier of his neighbour for at least a century. The Commissioners have now taken up each dispute separately, and decided it on its merits. There are good grounds for hoping that the joint report submitted by them will enable the Government to arrive at a satisfactory conclusion; and if the demarcations do not entirely prevent further disputes, they may at least afford a clear and definite basis for their adjustment.

In addition to the revisions of the petty tributes paid by the Gurjat chiefs, there have been certain re-assessments made of the tributes payable by several feudatory chiefships in the open country Chutteesgurh, all of which have been made payable for 20 years, and are liable to a certain fixed increase if the chiefs so manage their Abkaree as to injure the excise revenue due to Government.

The position and assessment of the non-feudatory chiefships of Chanda have ordinarily been settled in the revenue department, but there are some peculiar features in these Zemindarees which made it advisable to treat them differently. They are 20 in number, and cover an area of about 5,600 square miles, consisting chiefly of hill and forest. The inhabitants, some 95,000 in number, belong to one of the least known and wildest aboriginal tribes of these parts. In only one or two of the chiefships was there any post of Government police, in none of them any fiscal or administrative officer. The management of the country, and the maintenance of order over so large a tract, must mainly be effected therefore through the chiefs, though the Government of India had sanctioned the appointment of an officer for the supervision of these trans-Weingunga tracts. Therefore in recognizing the proprietary rights of these chiefs, it has been decided that a kind of entail should form a condition of the grant. This limitation, by which the estate and chiefship descends integrally to the next male heir strengthens the hands of the chiefs, and is entirely in consonance with their family customs and traditions.

Military.—The stength of the military force in the Central Provinces was as follows:—six batteries European artillery; three regiments and one detachment European infantry; one regiment and two detachments native cavalry, and six regiments native infantry; numbering in all 8,760 men, of whom 3,255 were Europeans. At the close of the previous year the aggregate strength was 9,500 men; but a company of sappers and a proportion of the forces of other arms, were temporarily withdrawn during the year for service in Abyssinia.

The health of the troops had been on the whole good. The death-rate for the year was 12 per 1,000, Europeans and natives included; for the Europeans alone the death-rate was 17 per 1,000, for the natives only nine per 1,000. The highest death-rate for the year was among the native infantry regiment at Hoshungabad, where it was 20 per 1,000. The total cost was 279,462*l.*, exclusive of the commissariat, hospital, staff, and other expenditure.

The proposal to establish an ordnance depôt and magazine at Kamptee, and to abolish the old arsenal at Nagpore, has been abandoned, and the funds have been diverted to improving the defences of the hill fortress of Seetabuldee. The new depôt and magazine for the Saugor field force to be erected at Jubbulpore, and the permanent barrack accommodation for the troops at Jubbulpore, Saugor, and Seetabuldee, were still in course of progress.

Forests.—Considerable success attended the endeavours of the forest officers to keep summer fires out of the reserves. This was a matter of great difficulty, as the grass in the forest becomes parched and dried up with the excessive heat, and fires spread over large tracts with terrible rapidity. In the western portion of the Jugmundul, and the Jowareegogurh reserve, covering an area of 53 square miles, no fire at all occurred, while in the eastern portion of the former, and in the Bijiragogurh forests, the experiment of burning the grass while green was tried, and by this means the more destructive fires at a late season were prevented. In Konkair, a forest of teak extending for seven miles down the Sendree nullah has been discovered; and in the Sunjaree pergunnah also a tract of good teak was found, which was to be taken up for a Government reserve.

During the year 1867–68 the unreserved forests were worked on the same system as in former years, that is to say, the right of collecting forest produce over plots of waste land was leased out for the year. The advantages of this system are, that it places the ownership of large and sometimes ill-explored tracts on a clear and definite footing, and prevents the forest produce from becoming the monopoly of any one class, while it renders such important necessaries of life, as wood and grass, equally accessible to all sections of the community, and lastly, it has been the means of raising a considerable revenue by a simple and sure method. On the other hand, it has been found by experience that though all classes have an equal opportunity of securing the leases of forest tracts, yet in practice the leases usually fall into the hands of speculators, who are better acquainted with the routine of court and commercial business, and are more alive to the advantages of traffic in forest produce than the bulk of the agricultural population. The result of this often is that purchasers are put to inconvenience, owing to the inefficiency of the establishments maintained by the

lessees, and that an opening is made for imposition on the poorer and more ignorant sections of the community.

The following suggestions have been, therefore, circulated to district officers for considering the better conservancy of these unreserved forests, viz.:—That special arrangements be made for large towns and the populous tracts surrounding them, by means of fuel and grass reserves; that the people of ordinary agricultural tracts be allowed to make free use, subject to forest regulations, of the unreserved forests, the forest dues being levied from them in a commuted form, payable by the head of the village, who will make his own arrangements for distributing the sum by a rate on the villagers; that in remote and wild parts of the country, where a fresh tax might be viewed with apprehension, and where from the remoteness of the forest no risk to the revenue need be anticipated from relaxation of the rules, summary settlements of the forest tracts be made with the neighbouring villagers, and that in some extreme cases the forests even be declared open for firewood and grass.

The financial results of the year 1867–68 show a net profit on the forest operations of 15,711*l.*, which is somewhat less than that shown for the preceding year, but the reason given for this decrease is that it was found necessary to make a new valuation of the stock in hand for the year 1866–67, which in the northern and western divisions resulted in a depreciation of the stock to the extent of 7,000*l.* in round numbers. Taking this into consideration, the results of the year may be considered satisfactory.

Public Works.—The Godavery Navigation Works have been considerably checked by want of labour during the last year. Cheapness of food in the coast districts prevented recruiting, and in a few instances caused desertion of the labourers already employed. Importation of coolies from Madras was thought of, but calculation proved this to be too expensive. With the limited means at disposal all exertions were concentrated in opening out the river up to the foot of the second barrier at Enchampilly before the next floods, so that the river up to that point from the coast might be navigable for seven or eight months in the year. The head lock and canal at the first barrier were completed in June 1867, and stores and steamers passed through; the Tail locks were progressing well; rocks in the bed of the river below the barrier have been cleared away by blasting; and at the second barrier a good deal had been done in improving the station of Enchampilly, building huts for the workpeople, hospitals, stores, &c., and in constructing light railways from the quarries to the anicut.

Survey operations have been carried on over about 100 miles of the Wurda river, and 21 of the Wunna, and also for a road from Chanda to the foot of the third barrier. Two assistant engineers were specially appointed for these surveys.

The Local and Municipal Committee have been very active in superintending town improvements, widening the streets, forming open squares, and introducing a better style of architecture. It is worthy of note that when a marked improvement is introduced, the people soon take to it of their own accord, the native members of local committees effecting much good in this respect. The scheme for supplying Nagpore with water had not been followed by actual work on account of the depressed state of municipal funds.

The Hingunghat waterworks project was in abeyance, from the same cause. Public gardens have been laid out at most of the principal district towns in connexion with the Agri-Horticultural Society of Nagpore. Trees have been planted along the principal roads, and a great many serais have been built for the accommodation of travellers. Several new school-houses have been erected, and repairs of roads and bridges duly executed. Numbers of native gentlemen have liberally contributed to the improvement of their several districts, by building tanks, wells, dispensaries, &c. at their own expense. The amount of private donations to public works was on the increase.

The total expenditure on account of public works generally in these provinces increased from 254,621*l.* to 352,791*l.*, while that for local works was 117,814*l.* against 73,021*l.* in the previous year.

Agriculture.—The statistics of agriculture during the past year obtained for all the districts in the provinces with the exception of Mundla and Sumbulpore, in

which settlement operations were not sufficiently advanced to allow of a complete tabulation of results, distribute the cultivated area as shown in the margin. The largest proportion, or about one-third of the whole cultivation is classed under the designation of "other food grains," including jowaree, gram, and other staples. Then follow wheat and rice, which together occupy exactly one-half of the area under cultivation. Oil seeds occupy about one-seventeenth, and cotton, which has rather fallen off in extent, one-twentieth of the area under the plough. Tobacco is more or less cultivated in every district. Sugar-cane is also grown to some extent, and the Otaheite variety, lately introduced, is said to be gaining favour.

	Acres.
Rice	2,532,328
Wheat	3,313,677
Other food grains	4,197,516
Oil-seeds	697,100
Sugar-cane	56,228
Cotton	644,271
Opium	6,147
Fibres	14,304
Tobacco	17,497
Vegetables	49,859
Miscellaneous	21,278

The cultivation of the poppy has decreased, from causes not very apparent.

No great progress can be reported in the adoption by the natives of European agricultural machinery. Models of various kinds of machinery have been introduced into every district, and steps taken to work them in presence of natives, more especially at the large agricultural fairs, but hitherto without much success. Many of them are unsuited to the nature of the soil, and require great power to work them, while others are of too complicated a structure to be generally understood and worked without European supervision. It has already been stated how the unfavourable season of 1867 affected the crops of this province. In the Wurda valley, where the best cotton is grown, upwards of 60 inches, or nearly double the average annual rain-fall was registered during the first few months of the monsoon, and north of the Sautpoora hills the weather was equally unfavourable. The continuous rain overwhelmed and stunted the young plants, and later in the season the floods that swept down the valleys of the Nerbudda and the Wurda ploughed up and destroyed many of the fields which had successfully battled against the rain. The cotton suffered more or less in every division of these provinces, and the crop of 1867 consequently proved very inferior both in quality and in quantity to the out-turn of former seasons. The area under cultivation during 1867-68 was 552,520 acres, as compared with 611,722 in 1866-67.

In a former report the average out-turn of cleaned cotton to the acre was taken at 60 lbs. for the Wurda valley, and from 40 to 45 lbs. for the less favoured districts. The Cotton Commissioner, by whom experiments have since been made to ascertain the average yield per acre, was of opinion that, although in other parts of the Central Provinces the out-turn might not exceed 50 lbs., in the Wurda valley and in Berar the average out-turn of cleaned cotton to the acre during a fair season could not be less than 80 lbs. In consequence of the bad season, however, he placed the average out-turn for the year under report at 50 lbs. per acre for all the districts of the provinces. At this rate the total out-turn of cleaned cotton for the season 1867–68 would be $27\frac{1}{2}$ millions of pounds, or 69,000 bales of cotton of 400 lbs. each. From similar causes the whole trade was affected, more especially the exports, which fell from 81,746 bales in 1866–67, to 39,998 bales, in 1867–68. Moreover, as 23,768 maunds, or 4,781 bales of this quantity were made up of cotton imported from Berar and the Central India Agency, into the Central Provinces, little more than 35,000 bales of the cotton actually grown in these provinces were exported during the year.

A noticeable feature in the cotton trade of 1867–68 was a sudden change in the direction of the traffic. Of the 39,998 bales exported from these provinces 23,180 bales were for the Bombay market—31,594 maunds or 6,477 bales were sent from the Chutteesgurh country to Cuttack and Bengal, and 50,433 maunds or 10,339 bales were exported to Mirzapore and the north-western provinces *viâ* Jubbulpore. Of this upwards of 6,000 bales consisted of the cotton of the Wurda valley, which for many years past has always found its way to Bombay. This cotton was, it is understood, taken up by the spinning factories at Cawnpore, and other stations in the North-western Provinces.

The system of pressing cotton for export at the markets in the interior made great progress during 1867–68. Owing partly to this new system of packing the cotton, and especially to the improvement in the traffic management of the

Great Indian Peninsula Railway, the cotton exported from the Central Provinces and the neighbouring province of Berar, was carried down to Bombay without any difficulty, and there was no recurrence of the "blocks" on the Great Indian Peninsula Railway, which occasioned so much loss, trouble, and anxiety in former years.

The fiscal administration of Government waste lands has already been reviewed under "Forests." In this place it will suffice to notice the extent to which they have been taken up during the year on purchase in fee simple, under the operation of the Waste Lands Sale Rules. The total area of the tracts available for this purpose was at the close of 1866-67, 13,214,779 acres, of which 104,388 acres were sold during 1867-68 for 22,745*l.*, being at the average rate of 4*s.* 3¾*d.* per acre. The highest average price obtained was in the Jubbulpore district, *viz.* 7*s.* 5¼*d.* per acre. More than half the area sold was in the populous tracts of Nagpore and Bundara, but in the sparsely inhabited uplands of Mundla there were 25,192 acres sold during the year, of which 15,000 acres were purchased by a French settler. Generally, however, the purchasers are natives of the country who take up small plots in the vicinity of their holdings.

Mineral Resources.—The coal in the districts of the Nurbudda valley was examined under the direction of the Great Indian Peninsula Railway Company early in 1867. The tract occupied by these coal measures was estimated to be about 140 miles in length, with a varying breadth of from 20 to 80 miles. In the course of the year the Government of India granted a licence to the Company to mine at Lokurtullye, in the Hoshungabad district, but the unexpected delay in opening up the railway through the Nerbudda valley retarded active operations.

Negotiations were also entered into with a Cawnpore firm who wished to obtain a mining licence throughout the Pench valley coal fields, but this transaction having fallen through, the late agent of the Company has been allowed to mine on his own account for two years without payment, on condition that he shall trust to the liberality of the Government for the terms to be made with him at the end of that period.

An even more important feature is the discovery of coal in Chanda where a new seam has been struck on the Nizam's side of the Wurda, which is stated to be "more argillaceous than that of Bullalpore, though lustrous in parts;" it, however, "burns well, and without much smoke." Since then pieces of coal and carbonaceous shale have been found at so many points along the Wurda, that there seems good ground for supposing that its whole line from the third barrier to Wurrora, a distance of about 90 miles, is coal-bearing. The seams first discovered have been further explored, and it is satisfactory to find that in one of them coal has been detected below the shale. Should this coal turn out to be of good quality and available to any extent, it may very favourably affect the prospects of railways and canals in these parts, for it is not separated from the open country and the Great Indian Peninsula Railway by the natural impediments which shut in the Chindwara coal. Search was being pursued with vigour, and the Government of India, with a full recognition of the importance of the discovery, have held out hopes of the deputation of a geologist to make a special examination of the tract in the ensuing cold season.

Fairs.—As many as 83 fairs were held in different parts of the Central Provinces during the past year, at which 1,523,733 persons were estimated to have attended, either for the purposes of religion, or trade. At all these gatherings the police were in attendance to maintain order, and enforce conservancy as far as was practicable, and no cholera or other epidemic broke out at any of them. The majority were small gatherings of from 5,000 to 10,000 persons, eight only counting a larger attendance than 50,000, and three only more than 100,000 persons. The commercial transactions registered at these fairs, taking them altogether, may thus be summarized. The total estimated value of property of all kinds brought for sale was 693,075*l.*, of which 427,646*l.* worth were sold, including English piece-goods to the value of 83,098*l.*, country manufactures and raw produce to the value of 184,069*l.*, horses, ponies, 85,253*l.*, horned cattle and sheep to the value of 85,253*l.*, and other miscellaneous goods to the value of 75,226*l.* Under all these headings there was an improvement on the previous year.

Municipal.—The numerous questions connected with municipal self-government have been subjected to discussion and experiment. A maximum rate has been fixed for *ad valorem* octroi duties, below which the municipalities have been

encouraged to fix their own schedules: freedom of election is encouraged and the representation of all classes is made a *sine quâ non*. Up to the present time there has been no occasion to apprehend that the municipalities will abuse the powers conferred upon them. The octroi is universally considered the most popular form of self-taxation. This, though not a discovery, may be regarded as a genuine confirmation of a commonly received opinion. After this, perhaps, the most noticeable fact has been the difficulty of reconciling men of any station to submit to the ordeal of popular election. They regard failure as dishonouring, and prefer remaining unrepresented in the town councils to running the risk of such a degradation, but it is probable that the keen mercantile instincts of townsmen will soon show them the value of municipal influence, and that they will not long submit to subject their interests to the arbitrement of their social inferiors. It has been found in other matters that traders, though quite ready to put on the overstrained scruples and delicacy of the aristocratic class when it suits them to assert their position and dignity, are not the less prepared to lay aside their pride when it stands in the way of profit.

Medical.—The number of dispensaries, branch dispensaries, and charitable institutions under Government supervision in these provinces was 66, of these 57 received direct support from the Government. Viewed with regard to the great extent of these provinces, these numbers do not appear considerable. Six years ago there were only ten dispensaries, and no medical relief was obtainable in eight districts; now, not only are the larger towns and districts amply supplied, but dispensaries have been opened in such wild districts as Mundla and Balaghat. In the year under report the first two institutions of the kind were opened in the latter district, and the main roads are dotted at intervals with branch dispensaries, which are of the greatest service to travellers, and of incalculable benefit to the people generally, in checking the propagation and spread of epidemics by travellers.

Out of a population above 9 millions, 167,881 only have received medical aid, but considering the apathy of the people, and the distances to be traversed by them, this return seems far from unfavourable to so new an institution as the dispensaries. In the more advanced districts, the results are more decidedly good. Thus, in the Nagpore district six dispensaries have treated 45,000 patients, or seven per cent. of the whole population.

The finances of the dispensaries show a slight improvement. The total funds available to the committees were 10,124*l.* as against 9,539*l.* in 1866-67. The Government grant amounted to 3,414*l.*, being less than that for previous years. The total expenditure was 7,846*l.*, leaving a balance in favour of the dispensaries of 1,178*l.* in cash, and 1,100*l.* in investment.

The Vaccination Department continued to meet with further success during the past year. A considerably larger number of persons were vaccinated than in the two previous years, as will be seen in the margin.

Number of persons vaccinated in—		
1865-66	-	4,767
1866-67	-	22,367
1867-68	-	34,100

Of these operations during the past year 83 per cent. were certainly successful, and 10 per cent. were probably so. Up to the present time the special Vaccination Department has restricted its operations to the districts of Nagpore and Chindwara, and it is reported that there is scarcely a village in these two districts which has not experienced the benefits derivable therefrom.

British Burmah.

Physical outline.—British Burmah was first united under one local administration in 31st January 1862. It extends for nearly one thousand miles along the eastern shore of the Bay of Bengal, from the Naaf estuary, which is in about 20° 50′ north latitude, forming the boundary between Aracan and Chittagong, to the Pakchan stream, which separates Tenasserim from Siam, a little north of the tenth degree of north latitude, and includes the ancient kingdoms of Aracan and Pegu, also the Tenasserim provinces conquered from the Siamese by the Burmese. It has been partitioned into three provinces or divisions, viz.:—Aracan, Pegu, and Tenasserim.

Aracan, comprising the districts of Akyab, Ramree, and Sandoway was conquered from the Aracanese by the Burmese in 1783, and ceded to the British in 1826. It has never been regularly surveyed, and originally belonged to Bengal. The chief town is Akyab, a seaport, the trade of which has entirely arisen, under British rule, within the last 40 years, and now amounts to

the annual value of 1,190,000*l.* sterling. It is bounded on the north-west angle by the river Naaf, which runs north and east among unexplored ranges of hills, inhabited by various tribes of the Indo-Chinese type, of a low stage of civilization. It is separated from Burmah Proper and Pegu by the Yoomadoung range of mountains, which attain an elevation of between 7,000 and 8,000 feet. This range runs nearly parallel to the sea coast, and lowers gradually towards the south to some 500 feet; from point Negrais northward, for some 200 miles, the land is a mere strip. The northern portion has a large area of alluvial soil in the lower course of the river Koladyne and its numerous affluents; the breadth from the sea shore to the water-shed mountains is nearly 90 miles. A large portion of the district is hilly, covered with forest and difficult of access.

Pegu, consisting of the five districts—Rangoon, Bassein, Myangoung, Prome, and Tounghoo, holds a central position, having the great advantage of a noble river, the Irawaddy, running through its entire length, and extending through Burmah Proper towards the borders of China; this river is known to be navigable for three-fourths of the year for a distance of some 600 miles, for steamers of considerable draft. The chief town, Rangoon, on the left bank of the river of the same name, about 20 miles from the sea, is also the capital of British Burmah, and is situated in 16° 46′ north latitude, and 96° 16′ east longitude. This division joins the southern portion of Aracan. The boundary between it and Burmah Proper is defined by a line drawn nearly east and west, six miles north of the town of Meaday on the Irawaddy in 19° 29′ north latitude; on the north-east angle it is shut in by a high mountain range inhabited by half-civilized Karens, and on the eastern side partly by the Sittang river, which also forms its boundary at the sea. From the sea to the northern boundary, which separates Pegu from Burmah Proper, the extent is about 240 miles. A ridge of mountains, of moderate height, intersects it from north to south, called the Pegu Yomas. In the district of Bassein there is a seaport of the same name, the annual trade of which is estimated at 178,056*l.* sterling. Tounghoo, once the chief town of a small kingdom, is situated on the Sittang; a frontier Custom House is kept up here, but no duties are levied.

Tenasserim, at one time under Bengal, includes Martaban. The former became a British province in 1826, and the latter was added to it after the war in 1852. It is bounded on the north by Karennee, and on the west by the Pegu division. To the eastward it is divided from the Shan States by the Salween river and its tributary the Thongyeen, neither of which are navigable for any great distance; the boundary line then follows the water-parting which lies between the British and Siamese possessions, and the Pakchan river completes the boundary on the south. The breadth of the land from the sea shore, at the mouth of the Salween to the mountain range which divides the province from Siam, is about 80 miles; this is gradually narrowed to half that distance towards the southern extremity. The interior is a wilderness of hills tossed up by volcanic action, with an elevation of 8,000 feet, thickly wooded, and running in a generally north and south direction, with long narrow valleys interspersed. Tenasserim is divided into the districts of Amherst, Shwégyeen, Tavoy, and Mergui. Moulmein, the chief town of this division, is pleasantly situated on the Salween, at its confluence with the Attaran and Gyne rivers, which join it about 30 miles from the sea, thus facilitating the communication with the interior. Within a hundred miles of the sea the passage of the Salween is barred by rapids, and the Irrawaddy therefore carries the main traffic between Burmah and the Western world. Further south is Tavoy, the chief town of a district of the same name; it is situated on a stream navigable for small crafts about 35 miles from its mouth; still further south is the pleasant town of Mergui, the principal town of the district of that name; it is situated on the sea, and can be approached by vessels of large burthen.

On the northern and north-east sides of British Burmah are wild tribes, apparently of Tartar origin, and on the east are the hill Karens. Within its limits are a great variety of tribes, with a still greater diversity of appellatives; but nearly all of them may be traced to four great families, the Talaing or Mon, the Burman, the Karen, and the Shan or Tais.

The surface of the country presents great variety, embracing rich deltas in the valleys of the Koladyne, Irawaddy, Salween, and other streams; the uplands are

fertile, while towards the eastern boundaries are ranges of mountains rising in some localities to the region of pines and rhododendrons. Outside the chief towns few made roads as yet exist; water is almost the only means of communication.

Products.—In a country so extensive and different in its aspect, great variety exists in the productions of the soil, as well as in the animal kingdom. Among the former, besides teak and rice, the staple products of the country, are cotton, tea, coffee, sugar, tobacco, indigo, sesamum, catechu, cocoa and areca palms, plantains, jack, bael, mangoe, and other fruit trees, and to the south doorians and mangosteens. The tea grown on the slopes of the hills in the northern part of Arakan is believed to be superior to any raised in Bengal, and coffee, though as yet only produced in gardens, thrives remarkably well. From the cotton of Pegu the finer sorts of the celebrated muslins of Dacca used to be manufactured. Silk, honey, and salt also must not be omitted. Among the animal kingdom may be enumerated elephants, rhinoceros, bison, wild cattle, hog, deer, buffaloes, bears, otters, tigers, leopards, wild and civet cats, monkeys, porcupines, armadillos, also pheasants, peacocks, and other game in considerable variety; the estuaries and rivers abound in an immense variety of fish; alligators and tortoises are likewise very numerous. In the mineral kingdom tin and coal have been occasionally found. Petroleum has been met with in the valley of the Irrawaddy; but it is beyond the frontier that Nature has been most liberal, bestowing inexhaustible mines of almost every variety of mineral wealth, the contents of which, when brought into the British dominions become articles of traffic in exchange for the highly prized goods of western manufacture.

Climate.—The climate is moist and somewhat depressing, tempered, along the coast, by the sea breezes; except in forest tracts at certain seasons of the year, it is not inimical to the European constitution. The British regiments stationed at the military posts of Rangoon and Moulmein on the coast, and at Thyetmyo and Tounghoo on the northern frontier, enjoy excellent health during their tour of service, which generally extends to four years. They are housed in wooden barracks well raised from the ground and covered with shingles. The average mortality in 1867 among the British troops was only 18·21 per thousand, a fourth of which was not attributable to the climate. The south-westerly winds, which set in at the beginning of May, bring up vast quantities of aqueous vapour from the Indian Ocean, which, checked in its course by the hills along the Tenasserim and Aracan coasts, deluges the country for nearly half the year. In Pegu the rains though plentiful in the delta, are less heavy than along the northern and southern coast; and in the northern part of Pegu, which is somewhat sheltered from the influence of the south-west monsoon by the Aracan hills, the supply of rain is scanty, and drought is occasionally felt, but famines are all but unknown, and such as have occurred may be ascribed rather to political causes than to soil or climate. Along the coast during the S.W. monsoon, from May to October, the thermometer ranges from 75° to 85°; in the months of March and April it occasionally rises to 100° in the shade. In the northern part of Pegu the thermometer ranges to a maximum and minimum of ten degrees above and below what it registers on the coast; in the interior the variations within 24 hours are very great, extending occasionally to as much as 40°. There is no cold weather except on the higher ranges of mountains, where frost is frequent in the winter months. Among the indigenous inhabitants epidemic disorders are neither very frequent nor fatal; small-pox and cholera, in places where sanitary precautions are unknown, are the only maladies which materially affect the increase of population.

Political.—The only sovereign state with which the Government of this province is in direct communication is that of the King of Burmah. Without entering into the very early history of Burmah, it may be mentioned that the first notice made of the Burmese dominions was by an English writer named Ralph Fitch, a merchant of London, who travelled in India towards the end of the 16th century. He left Bengal in November, 1586, in a Portuguese vessel, and making allowance for the scantiness of his opportunities, his account of localities and manners is surprisingly accurate and correct. He describes Bassein, Medon, (?) Dalla, Syriam, a place called Macao, Martaban, and Tenasserim. From his account of the then existing trade, it would appear that the trade and industry of Pegu retrograded during the long period of 266 years which intervened between his visit in 1586 and the conquest of Pegu by the British in 1852; and this is said to be quite consistent with the history of that period, which is full of accounts of frightful scenes of bloodshed and rapine.

When the East India Company was first established in 1599 Pegu was in its depth of desolation; hence, though their trade had spread far to the eastward, no attempt to communicate with the Irrawaddy delta had taken place up to 1618. The first intercourse appears to have originated from the eastward, for about this period an English factor at Siam, Lucas Anthonison, sent one Thomas Samuel to Zimmé to inquire into the prospects of trade. Zimmé had been subject to the King of Pegu, and had been conquered by the Siamese, but at this time the King of Ava had taken Pegu, and afterwards annexed Zimmé while Samuel was there, and he was carried captive with other foreigners to Pegu, where he died. When news of Samuel's death was brought to Masulipatam, where Anthonison happened then to be factor, he sent two agents to the King of Burmah with presents, and requested restoration of Samuel's effects. They were sent back in 1619 with most of Samuel's property, and a letter from the King inviting trade. From this time it appears that British intercourse with the Burmese countries assumed some importance. The English had settlements at Syriam, Prome, and Ava, also at Bhamo near the borders of China; the Dutch had likewise factories at the same place, but on some dispute with the Burmese, the Dutch threatened or attempted to invite the aid of the Chinese. On this occasion both Dutch and English were expelled, probably not without reason, as in 1658–59 the Chinese did invade Burmah. In 1680 and 1684 the East India Company made attempts to re-establish factories; in 1686–87, their attention was turned towards Negrais, which was taken in nominal possession. In 1695 Nathaniel Higginson, Governor of Fort St. George, sent Mr. Edward Fleetwood and Captain James Lesley as Envoys to the Court of Ava, which resulted in the re-establishment of the factory at Syriam. In 1697 Mr. Bowyear was sent as chief of the factory at Syriam, and was charged with a mission to the court of Ava. In 1709 Mr. Alison was sent as Envoy to Ava. In the contests of the Burmese and Peguans for the possession of Pegu, the Company's Agent, Mr. Smart, seems to have acted with duplicity, and in 1743 the factory at Syriam was burnt. In 1753 a factory was established at Negrais. In 1755 Captain Baker was sent by the Resident at Negrais on an embassy to Alompra, but his mission had no result. In 1757 Lieut. Newton, in charge of Negrais, deputed Ensign Lester as Ambassador Extraordinary to Alompra, whom he overtook on his way up the river from Rangoon. The King conceded Negrais in perpetuity, and ground for a factory at Bassein, with freedom of trade, in return for a pledge of military assistance. In 1759, when every nerve was on the stretch in India to maintain the interests of the East India Company against the French, the little garrison was recalled from Negrais; advantage was taken of this, and on 7th October of that year the remaining Europeans and natives were treacherously massacred by the Burmese. In 1760 Captain Alves was sent with letters and presents from Holwell, Governor of Fort William, and Pigot, Governor of Madras, to demand satisfaction for the massacre and demand the release of the prisoners. Alompra had died on his Siamese expedition a few months before Captain Alves reached Ava. He was plundered and otherwise shamefully treated; the prisoners were released, but the idea of satisfaction was scouted, and Ensign Lester's treaty ignored. The factory at Bassein was never re-established, but that at Rangoon appears to have been kept up till 1782. The Burmese, who had become neighbours by the subjugation of Aracan in 1783, began in 1794 to make threatening demonstrations on the Chittagong frontier; at the same time it was known that the French were directing their attention to Burmah. For these and other reasons the Governor General, Sir J. Shore, deputed an embassy to Ava under Captain Michael Symes, of H. M.'s 74th Regiment, who though treated as the envoy of an inferior power, succeeded in obtaining concessions from the King of no inconsiderable importance. In the King's letter to the Governor General it was provided that English merchants should be permitted to go to whatever part of the Burman territory they thought proper, either to buy or to sell, and they were on no account to be stopped, molested, or oppressed; permission was also given to an agent to reside at Rangoon, and accordingly Captain Hiram Cox was sent as resident to Rangoon in 1796. He had charge of some articles which the King had commissioned through Symes, but he was not to go to Ava unless invited. He was, however, summoned, and reached Amarapoora in January 1797, where he remained for nine months, bearing every kind of slight, indignity, and imposition. Several insolent communications were addressed in the following years to the Governor General by the Viceroy of Rangoon and the Governor of Aracan. In 1802 Symes was sent again by Lord

Wellesley, escorted by 100 sepoys. This mission was a total failure. Symes was treated with mortifying neglect and deliberate insult, and at the end of three months quitted the country without an audience of leave. In May 1803 the apprehension of French interference again induced the Government to send Lieutenant Canning as agent to Rangoon; but, in consequence of the insolent violence of the Ye Won, who was in charge of the Government, and insisted on opening all letters, Lieutenant Canning returned. In 1804 an outrage was perpetrated on a British ship from Penang which put into Bassein for supplies. In 1809 Captain Canning was again despatched as agent to Rangoon with the special view of explaining our blockade system, which was then enforced on the French possessions. He proceeded to Amarapoora at the King's desire, and met with better treatment than either of the two last missions; the necessary explanations were effected. In 1811 commenced the disturbed relations on the Aracan frontier, which eventually led to the war of 1824. Captain Canning was again deputed to the Burmese Court to endeavour to arrange matters, but the Burmese again invading British territory, he was recalled. This was the last mission up to the breaking out of war, which was declared on the 5th March 1824; the peace of Yandaboo was signed 24th February 1826. By this treaty the provinces of Aracan and Tenasserim, including Yeh, Tavoy, and Mergui were ceded to the British. Among other stipulations, provision was made for an accredited minister from both countries, retaining an escort of 50 men, each to reside at the court of the other; all exactions upon British ships in Burmese ports not required from Burmese ships were abolished; all prisoners of war were to be delivered over; and 1,000,000*l.* sterling was to be paid towards the expenses of the war. In September 1826, Mr. Crawford, who was then Civil Commissioner at Rangoon, was deputed to Ava, as envoy, to negotiate a commercial treaty. The treaty he obtained was of no great value, but he afterwards published a very valuable work on Burmah, from which and from the works of Colonel Yule and Symes the information here given is derived. In 1827 a Burmese embassy came to Calcutta chiefly with the view of obtaining a postponement of the outstanding half of the tribute. They were referred to Sir Archibald Campbell at Moulmein. Up to 1830 the fourth instalment of the tribute remained outstanding, and Major Henry Burney was deputed as resident to Ava, on which the Burmese despatched a reciprocal mission to Calcutta. These envoys visited the Upper Provinces to meet Lord William Bentinck and were absent nearly three years. The last instalment was completed in the end of 1832. Major Burney remained at Ava till June 1837, when he withdrew from ill-health and disgust at the barbarities which were daily perpetrated by Tharrawaddi, then King. In 1838 Colonel Benson was despatched as resident, but his mission resulted in no good. In March 1839, disgusted with his useless and intolerable position, he returned to Bengal, leaving the residency in charge of Captain McLeod, his assistant, who had also to quit the golden city, from ill-treatment and ill-health, for Rangoon, where he stayed till January 1840, when he finally withdrew the British residency from Burmese territory, and all intercourse ceased between the two Governments. King Tharrawaddi was at this time laboring under partial insanity, and every now and then there was serious apprehension of a *second* Burmese war; especially was this the case when he visited Rangoon in 1841 with his whole court. In 1845 he was put under restraint. His successor proved little better than the madman he had succeeded. At this period the relations between the two powers had grown from bad to worse, and in consequence of the indignities heaped upon Captain Harold Lewis, while trading at Rangoon, the just resentment of the Governor General was aroused, and war was a second time declared on 10th January 1852. The possession of increased steam appliances gave the British a great advantage and enabled them to bring this second war to a speedy conclusion. On the 20th December of the same year, Lord Dalhousie's proclamation annexing Pegu and Martaban was published at Rangoon, and peace was proclaimed by the Governor General in council in a notification dated Fort William, 30th June 1853.

In 1855 an embassy was sent to the Court of Mandalay, under Major, now Sir A. P. Phayre, to endeavour to arrange a commercial treaty with the Burmese Government, but the attempt failed; the effort was repeated in 1862 with better success. In 1866 Sir Arthur Phayre paid a third visit to Mandalay, but His Majesty was too elated with his recent success over the rebels, who had attempted to dethrone him, to enter into further relations with foreign powers. The desired object was, however, effected by Colonel Fytche in 1867, when the treaty of 1862

was revised. Trade is now open to all British subjects, and a court established at Mandalay, presided over by a Political Agent, who decides all commercial differences which arise between British subjects; civil cases arising between registered British subjects and Burmese being decided by a mixed court. The tariff rates of customs on the Burmese side were also revised, the extradition of offenders for certain heinous crimes agreed to, and other matters placed on a satisfactory footing.

Treaty obligations exist between the British and Siamese Governments. The boundary of the Pakchan was arranged by the Commissioner on the part of the British in 1864; while that along the water-shed which separates Tenasserim from Siam was determined in 1867. The British Government have friendly relations with the Chief of Western Karenne and with the Chief of Zimmé, a tributary of Siam. There are no independent native states within the limits of this province.

Administration.—The Government of British Burmah is conducted by a Chief Commissioner in direct communication with the Government of India; he is also ex-officio Judicial Commissioner, and has the powers of a Sudder Court in criminal matters, including the power to confirm sentences of death, and in revenue matters he has powers similar to those exercised by the Revenue Board in Bengal; under him are three Commissioners of Divisions, who hold Sessions Courts and have appellate jurisdiction in judicial and revenue matters from the Deputy Commissioners of the 12 districts. Judicial appeals from the magistrates of Rangoon and Moulmein are referred to the Recorders of those towns. Appeals from the decisions of the Recorders of Rangoon and Moulmein come before the High Court of Judicature at Calcutta in suits above 300*l.* in value and less than 1,000*l.*; from this amount and upwards, an appeal is referred to Her Majesty in Council. Besides the above there are 17 Courts presided over by European Officers, who are called Assistant Commissioners; and 91 Courts presided over by Extra Assistant Commissioners, who are, with two or three exceptions natives of the province.

Area and Population.—The total area of this province has been estimated at 90,070 square miles, of which only one-thirtieth part is under cultivation. Throughout the whole country the people belong to various branches of the Indo-Chinese family. They probably came down at a remote period from the plateau of Central Asia, following the courses of the Salween and of the eastern affluents of the Irrawaddy. The most civilized race are the Burmese, who, anterior to the period of the British conquests, had, under the leadership of Alompra, subjected the Aracanese on the north, and the Talains on the south, and possessed the ruling power over the entire country which now forms British Burmah. The Aracanese are of the same race as the Burmese, have the same name, and speak the same tongue, but have been isolated for many generations by their geographical position. Hence they have local peculiarities of physiognomy and speech. The Talains had settled in Pegu before the ascendancy of the Burmese in the upper valley of the Irrawaddy, supplanting in a prehistoric period an inferior and indigenous race, the remains of which are probably those wild people now found scattered in the hills on the outskirts of the province.

The social condition of the people throughout the three divisions is generally similar. Everywhere in the plains the occupied land is an allodial possession. The estates, on the average, do not exceed eight to ten acres. The agriculture is rude, but the fertility of the soil is exuberant; there is only one grain crop in the year. Rice is cultivated almost exclusively. The laws of inheritance and of marriage, the religious faith and superstitious practices, the traditions, the feelings, the sympathies, and the prejudices are generally alike among the people in the plains. But the hill tribes have not been won over to Buddhism. They have no idols and no priesthood, and they still retain the ancient worship of the deities of the woods, the hills, and the streams. Their languages are unwritten. Many of them are gradually settling in the plains, as the Karens commenced doing ages ago. They are as a rule in the ordinary affairs of life frank, truthful, and hospitable. They have plenty of food and clothing with reference to the climate. Whether in the hills or plains, the houses of the peasantry, built of bamboo and occasionally of wood, have the floors raised on platforms, and never placed on the ground.

At the principal seaports where Europeans and foreign Asiatics have settled in considerable numbers, their knowledge, enterprise, and capital have opened

out markets for timber, rice, petroleum, and other products of the country, which could not have been accomplished under the native government. The people generally, since the British conquest, have acquired a considerable amount of personal property. The small landed proprietors are independent and prosperous. The high rate of wages for a common day labourer (about 9*d.* to 1*s.* a day) show that the condition of the labouring classes is comfortable. Yet among the Burmese and other indigenous people there is no class that can be called wealthy.

When the divisions of Aracan and Tenasserim first came under British rule in 1826, the country was at its lowest ebb; the Aracanese in the north, and the Talaing populations in the south, had been ground down under Burmese oppression; the provinces were in fact little better than waste. After the war of 1826 the hopes entertained by the Peguans that their country would also be retained by the British were disappointed, and many of the populace immigrated into British territory. When, however, in 1852, Pegu became a British possession, there was a reflux of the population to the richer lands of Pegu, and immigrants, overcoming all obstacles, came in from the King's dominions in Upper Burmah, and from the Shan populations in the east. The annexed statement will show that from 1826 to 1852 the population of Aracan and Tenasserim rapidly increased, but from 1852 Pegu developed still more rapidly. In 1857 the population was 1,478,703, showing an increase of over 61 per cent. in the last ten years. It should be stated at the same time that Pegu and Martaban were under native rule from 1825 to 1852, while Tenasserim and Aracan were under the British during the same period.

Province.	1825.	1855.	1867.
Aracan - -	100,000	364,310	445,483
Pegu - -	769,120	631,640	1,482,014
Tenasserim -	70,000	166,863	} 464,815
Martaban -	150,000	87,742	
Total -	1,089,120	1,250,555	2,392,312

Revenue.—In British Burmah the owner of land, who is also generally the cultivator, pays a fixed rate of land rent to Government annually; the land has to be measured each year, but the assessment remains fixed, unless grounds were adduced for its alteration; the recurring measurements were a source of trouble and annoyance, and to avoid them the people have been offered settlements, that is, grants for a fixed term, generally five or ten years; during the currency of the lease any extra land adjoining the grant which may be brought into cultivation remains untaxed; at the expiration of the lease it is assessed according to its class; the terms were otherwise favourable. Yet, notwithstanding the facilities offered, the people have not hitherto readily accepted leases, but it is believed that they are beginning to learn the advantages, and in some districts of the province considerable progress had been made during the past year.

Under the present system no special survey is necessary; so long as the owner accepts the previous year's rent roll as fairly representing the land cultivated by him, that quantity is accepted as sufficiently correct by Government.

In British Burmah there are no zemindars, or middle-men of any description, but Government deals directly with the cultivator of the soil. But where the villagers of an entire tract accept a lease, the head men of the village are allowed to collect the land tax without giving them any right in the soil, or even a per-centage on the collection. This tax forms the chief item of imperial revenue in this province, ranging from 1*s.* to 6*s.* per acre, according to the fertility of the soil. The revenue from this source has been steadily increasing; in 1855 it had risen to nearly 200,000*l.*, and last year it had increased to 300,000*l.*; the only drawback to the extension of cultivation is the cattle plague, from which the province is scarcely ever free; the loss to the cultivators in 1865–66 exceeded half a million sterling.

Capitation tax and Customs dues form the next most important items of taxation; the revenue derived from the first has risen from 115,000*l.* in 1855–56 to nearly double, or 220,000*l.* in 1867–68, while Customs dues have increased in the same period from 82,500*l.* to over 200,000*l.* All frontier Customs on the British side have been abolished since June 1863; the value of this trade is now 2,544,149*l.* annually, the tax on which would have amounted to 100,000*l.* Excise, fisheries, and teak timber, much of which is imported from beyond the frontier, also yield a considerable share towards the public revenue.

Besides the rate levied per acre on rice lands, which forms nine-tenths of the cultivation of the province a tax is levied on gardens and orchards, generally at the highest rate levied on adjacent paddy land. Some descriptions of valuable fruit

trees are also taxed separately. On the hills the people practise a barbarous mode of tillage, called Toungya, which consists of clearing a fresh patch of forest each season, and of burning the timber on the ground. They change their village sites at uncertain intervals, as the soil of the surrounding country becomes exhausted; while such wandering habits last, their condition cannot be materially improved. The remote hill tribes are still for the most part in a savage state of isolation and independence. Even they, however, grow cotton, and wear cloth of strong texture and various colours of their own manufacture.

Transfers of land among cultivators are almost unknown in this province; there is so much spare land available, that each family can occupy as much land as its members wish to cultivate; remission of revenue is allowed on land taken for a term of years, according to the difficulty in bringing it into cultivation.

	1865–66.	1866–67.	1867–68.
	£	£	£
Imperial Revenue	1,001,529	918,771	1,063,461
Local ,,	89,758	88,022	90,436
Total - -	1,091,287	1,006,793	1,153,897

The demand on account of imperial revenue for 1867–68 was 1,063,461*l.*, and the demand on account of local taxes 90,436*l.*, making altogether a total of 1,153,897*l.*, which gives an average of about 9*s.* 8*d.* per head of the free population, exclusive of the soldiers.

The following STATEMENT shows the progress of the PROVINCE in some of the most important particulars, and also in Imperial Revenue in 1867, as compared with 1855 :—

YEAR.	Total area cultivated, including hill cultivation at two shillings an acre.	Total Land Revenue.	Capitation Tax.	Customs including fines, confiscations, &c.	Fisheries.	Excise.	All other items of Imperial Revenue.	Grand Total of Imperial Revenue.	Amount value of Exports and Imports.	Tonnage of Vessels.
	Acres.	£	£	£	£	£	£	£	£	Number.
1855 - -	1,140,849	199,401	116,242	82,246	29,791	39,165	64,944	531,792	4,946,408	409,152
1867 - -	1,956,638	308,771	207,666	201,265	53,902	93,000	198,855	1,063,460	9,950,987	576,013
Increase in 12 years -	815,789	109,379	91,424	119,019	24,111	53,835	133,911	531,668	5,004,579	166,861
Rate per cent. of increase	71·5	54·8	78·6	144·7	80·9	137·4	206·1	99·9	101·1	40·7

Judicial.—No legislative powers are attached to the administration of this province; when a fresh Act is required a draft Bill is submitted to the Legislative Council of India. The judicial administration of this province is carried on by a Chief Court for the province, a Sessions Court for each division, besides a Recorder's Court for each of the important seaport towns of Rangoon and Moulmein, a District Court in the chief town of each district of the province, presided over by a Deputy Commissioner, and other minor courts presided over by Europeans and natives, distributed with reference to the size and population of the localities, and the wants of the people.

The number of civil suits decided in 1867 in all the courts was 33,509. The total value of the suits, exclusive of appellate cases, litigated during the year in all the Civil Courts throughout the country amounted to 362,170*l.*

As regards the Criminal Courts, including the Recorder's, 16,887 cases were under investigation, in which 32,230 prisoners were implicated, or one to every 72 of the population. Of the prisoners tried, 18,555 were convicted or committed, and 13,365 acquitted, and only 268 prisoners awaiting trial at the close of 1867 who were concerned in 129 cases.

Police.—The total of all grades of police in the province (exclusive of those at Port Blair) at the close of 1867 was 5,999, of whom 56 were European officers. There were no mounted police; fire-arms were provided for 5,013, and swords for 732. The superintendence of the force was vested in the chief Commissioner of the province, and its administration conducted by an Inspector General, with officers of subordinate grades, under the general control of the Commissioners of Divisions and district magisterial officers. The cost to imperial revenue last year was 110,871*l.*, and 10,863*l.* were paid from municipal resources. Besides the above, there were 945 village police, who cost Government 11,340*l.* The average area of each European officer's charge was 1,608 square miles, and 42,530 of population, and of each native officer's charge, 209 square miles and a population of 5,538 souls. The great majority of the police force are natives of the country, but in towns where there are foreign elements, natives of India

are generally enlisted, as also in a few other localities where more strict discipline than the Burmese relish is requisite, such as over gaols, &c.

During 1867 there were 7,456 non-bailable offences reported, 10,146 bailable offences punishable under the Indian penal code, and 3,405 offences committed against special or local laws. The value of property stolen amounted to 55,083*l.*, of which 16,913*l.*, or 30 per cent., had been recovered. The per-centage of cases brought to trial for offences committed was 80, and the per-centage of persons convicted, to those brought to trial, was 57.

Military. — At Rangoon the head-quarter station where the general commanding the division and his staff reside, the garrison consists of 139 artillery, officers and men, one European line regiment 585 strong, and one native regiment of infantry consisting of 604, officers and men. No military force is stationed in Aracan. In Tenasserim, a garrison is located at Moulmein and a detachment from Tounghoo at Shwè-gyeen; at the former place there were eight European officers and 539 natives of all ranks at the close of last year, and at Shwè-gyeen one European officer and 121 native troops. At Thyetmyo, on the Irrawaddy, near the frontier, the garrison consists of four European artillery officers and 111 rank and file, 18 officers of a British regiment of the line and 396 rank and file, 7 European officers and 655 native infantry; while at Tounghoo on the Sittang, which is also near the Burmese frontier, there were four European officers of artillery and 65 rank and file, 11 officers and 313 rank and file of British infantry and five European officers and 479 native infantry.

Marine.—The "Nemesis," of 450 tons burthen and 120 horse-power was the only Government steamer attached to this province. Her crew was composed of Mussulman lascars.

At each of the seaports of Akyab, Khyouk-phyoo, Bassein, Rangoon, and Moulmein a suitable establishment of buoy vessels, boats, &c. is kept up. There are four lighthouses on the coast of this province; one at the entrance of the Akyab harbour, one on the Alguada Reef, near the entrance of the Bassein river, one on Double Island, ten miles south of the entrance to the Moulmein river, and one on Table Island, the northernmost of the Cocos group to the N. E. of the Andaman Islands. Three lighthouses were also in course of construction; one on the Krishna Shoal, and the other two to mark the entrance to Rangoon river, the first on China Bukeer, and the second on the eastern grove.

Arrangements have been carried out for a weekly steam service between Calcutta and Rangoon, instead of a tri-monthly. Besides this there is a monthly communication between Madras and Rangoon, and between the Straits and Rangoon.

Finance.—The gross imperial cash receipts for the year 1867–68 amounted to 1,086,322*l.*, while the civil charges amounted to 440,400*l.*, leaving a net balance available for public works, military, electric telegraph, and post office departments of 645,921*l.* Military charges may be estimated at 350,000*l.* The gross cash receipts on account of local funds for the same period came to 105,243*l.*, and the civil charges amounted to 83,500*l.* The total of both imperial and local cash receipts was thus 1,191,565*l.*, as compared with 1,153,897*l.*, shown as the Revenue demand.

The coinage current in this province is the Government rupee, half, and quarter in silver; and half and quarter anna pieces in copper. Recently the King of Burmah has taken to manufacturing silver coin in small quantities, the relative value of which approximated to the Government rupee and its fractions, and was accepted by the native inhabitants of this province as its equivalent. No currency notes have been issued for this province.

Public Works.—The total sum expended in the province during 1867–68 on imperial works was 248,538*l.* The cost of the establishment connected with the above expenditure being 34,952*l.* The sum expended from local funds, including cost of establishment, was 52,420*l.* The gross income received in cash in the Public Works Department was 5,742*l.*

There are no public works for irrigation purposes in this province, but a large area of land has been reclaimed from swamp by the erection of a bund in the Myan-Oung district. Communication is kept up between the Rangoon river and the Sittang by deepening a stream which connects the Sittang and Pegu rivers, and is called the Pyne-kune creek or canal.

Agriculture.—All other articles produced in this province are dwarfed when compared to rice, which takes up nine-tenths of the entire area under cultivation. The total area of which in 1867–8 was 1,567,419 acres; the area under garden and orchard was 105,042; under Toungya or hill cultivation the area was 103,712 acres; and under miscellaneous 59,140 acres, including cotton 3,433 acres, tobacco 10,128 acres, sessamum 12,059 acres. The increase in agriculture amounted to 26,257 acres, or 1·35 per cent. over the previous year.

The crops partially suffered in the Myan-Oung, Prome, Tenasserim, and Martaban districts from inundation or drought; the season was, however, as a whole, favourable for the rice crops, and the out-turn equalled the average of past years. But cultivation was retarded here and there throughout the province from cattle murrain; this was especially the case in the Akyab district, where, it has been reported, over 50,000 head of cattle perished. This scourge, which is similar in its character to the Rinderpest of Europe, threatens to become a serious difficulty in this province, where it appears to be endemic. In 1864, a medical officer was deputed by Government to make a diagnosis of this disease, but failed to effect any cure. Separation of the healthy from the diseased cattle, which is perhaps the best remedy, is difficult of execution in a country where for many square miles together petty landowners cultivate holdings of a few acres in close neighbourhood.

The rates of Government rent charged on land are regulated by the productiveness of the soil, nearness to marts, facilities for communication, and so forth. For rice lands of fair quality and easy access the average rate of tax may be stated at 4*s.* an acre. Good land near towns or on highways is charged 6*s.*, while poor soil in out-of-the-way places is taxed as low as 1*s.* an acre. Rent for all other descriptions of cultivation is dependent on the rates of assessment on the nearest paddy land, which rate is never exceeded.

The average price of the staple article of food, rice, was 4*s.* per 80 pounds in Aracan, and 4*s.* 6*d.* in Tenasserim. Cotton ranged from 12*s.* to 14*s.* per maund of 80 pounds. The price of salt in Aracan ranged from 2*s.* to 3*s.*, and the price of cattle may be taken at from 5*l.* to 5½*l.* for a full-grown bullock or buffalo. In Pegu they were dearer.

Skilled labourers, such as Chinese workmen, claim 4*s.* a day; but the charges made for job work in iron, leather, or wood, and such like, come to a rate nearer 10*s.* a day than 4*s.* Unskilled labour may be set down at 1*s.* per diem, except in the seaport towns, where it is much higher. The hire of carts varies from 3*s.* to 4*s.* per diem, but in the busy season they are scarcely procurable.

Mines.—The only mines of any consequence in this province are the tin mines of Mergui, which are worked by Chinese; the out-turn is about 10,000 pounds annually, of the value of 3,200*l.* Lead, copper, iron, and antimony ores exist, but not in large quantities. Gold has been found in the Shwè-gyeen district (Tenasserim), but the out-turn did not pay the labourers even 1*s.* a day. Coal of an inferior description has been found on the Salween.

Manufactures.—In the absence of complete returns the total number of mills and looms cannot be calculated. Many looms for weaving silk and cotton exist throughout the province, and in fact a loom is part of the household furniture in many families. Useful and not inelegant attire of variegated colours, worn by men and women of the country, is manufactured in sufficient quantity to meet all domestic requirements. Prome is celebrated for workmanship in silver. Under the head of "manufactures" may also be enumerated salt, oil, sugar, cutch, lacquered ware, indigo and other dyes, fish-paste, and implements of husbandry, all for home consumption. Salt and fish-paste are exported to Burmah Proper.

Years.	Exports.	Imports.	Total.	Customs Duty.
	£	£	£	£
1864–65	5,544,762	4,796,971	10,341,733	203,865
1865–66	5,568,385	5,176,945	10,745,331	189,536
1866–67	3,942,788	3,956,667	7,899,455	118,941
1867–68	4,759,635	5,191,352	9,950,987	199,173
Total -	19,815,570	19,121,935	38,937,506	711,515

Trade.—The aggregate industry of the people of this province was represented during the past year by a trade which amounted to nearly 10,000,000*l.* sterling in value. The total of the export trade by sea and land was, in round numbers, 4,760,000*l.*, while the value of the imports was nearly 5,200,000*l.* As 1866–67

only consisted of 11 months, to arrive at a fair comparison of the out-turn for the year, that for the three previous years is shown in the accompanying statement. The value of the trade in 1867–68 was 9,950,987*l.*; in 1857–58 it was 5,522,212*l.*, being an increase of over 80 per cent. in 10 years. The abolition, however, of all frontier duties took place in the interim, which stimulated the trade with Burmah. Shipping was very scarce during the year, owing to the demands for the Abyssinian Expedition, and at one time over 20,000 tons of rice were in store at Akyab awaiting freight; but since the conclusion of that war, ships have been dropping in, and the current year will, it is expected, show an increased trade.

Medical.—In the three charitable dispensaries in the Aracan division the total number of persons who received relief was 3,296. The aid from Government amounted to 722*l.*, and the private subscriptions amounted to 160*l.* In the Pegu division there were seven dispensaries. The total number of in-door patients treated in 1867 was 1,694, and of out-door patients 16,800. The total private subscriptions collected in Pegu amounted to 441*l.*, of which only 154*l.* were collected in Rangoon. In the Tenasserim division there are four charitable dispensaries. The number of sick admitted was 8,667; the contributions from Government amounted to 463*l.*, and the private subscriptions realized 173*l.*

As regards vaccination, 518 persons were successfully treated in Aracan at a cost of 167*l.*; 5,280 were treated in Pegu at an outlay of 322*l.*; and in Tenasserim 1,342, costing 270*l.*

A strong recommendation has been submitted for the establishment of a Medical College at Rangoon, at which Burmese youths can study medicine and surgery; it was hoped the Government of India would sanction a scheme which will be of undoubted utility in advancing the welfare of the people.

The health of the people has been generally good; there has been no epidemic of any description to interfere with the welfare of the inhabitants. The rate of increase of population, chiefly from natural causes, has been 3 per cent. on the previous year. The health of the soldiers, both European and native, has been excellent, especially so with the former, among whom the mortality was as low as in the most favoured portions of the globe, being only 18·21 per thousand of strength, including several fortuitous cases. The appointment of a Health Officer for the Port of Rangoon has not been without beneficial results in guarding against the importation of disease from abroad by the agency of the coolies who flock here from the Madras Coast during the working season. In common with the other provinces of India, a Sanitary Commissioner has been appointed for British Burmah; much good will in time result from the labours of this officer, if the natives can be induced to take an interest in their own domestic comfort and welfare.

Ecclesiastical.—In Aracan there is one Anglican episcopal church; Pegu contains four;—two at Rangoon, one at Thyetmyo, and one at Tounghoo; in Moulmein there is also one. These six churches have separate clergymen attached to them. There are besides two Roman Catholic churches at Rangoon, one at Tounghoo, one at Thyetmyo, two at Moulmein, and one at Mergui.

Education.—There are no universities or colleges in this province; but there are four Government schools of the middle class, with an average daily attendance of 439 pupils. The cost of their establishments was 1,620*l.* in 1867. The private institutions for boys of the middle class numbered 13, in which the average daily attendance was 1,102 pupils. Grant-in-aid was given by Government to the extent of 2,580*l.*; the fees amounted to 2,075*l.* Of private schools of the lower class there were 150, the average daily attendance at which was 3,167; the amount of endowments for which amounted to 932*l.*, the Government grants being 714*l.* Of private girls' schools of the middle class five are recorded, with an average attendance of 298 pupils. The endowments of these schools amounted to 1,573*l.* annually, and the contribution by Government was 580*l.* Of normal institutions for boys there were seven, with an average daily attendance of 268 pupils. The endowments amounted to 1,224*l.*, and the Government grant to 540*l.* The total educational grant from Government for 1867 actually expended, amounted to a little over 5,000*l.* Endowments and fees realized amounted to 10,700*l.*, being more than double the Government contributions. Education is progressing quietly, chiefly through the agency of Missionaries; and the appointment of a director of Public Instruction will place this department on a more efficient footing.

Madras.

Physical Outline.—This Presidency is called after its chief city, which is the seat of government. It extends from Cape Comorin, in lat. 8° 4′, to the northern extremity of the district of Ganjam, in lat. 20° 18′, and from 74° 40′ to 85° 15′ east longitude. Its greatest length is about 950 miles, and its greatest breadth in a westerly direction from the city of Madras, about 450 miles. Toward the north-west it joins the Bombay Presidency; on the north it is bounded by the Nizam's dominions and the Central Provinces, and to the extreme north-east it joins the Lower Provinces of Bengal. Its eastern or Coromandel coast is washed by the waters of the Bay of Bengal, and its western or Malabar coast by the Arabian sea. There are two native states, viz., Cochin and Travancore in the south-western corner, which are administered under the government of this Presidency. The only harbours worth mentioning on the Malabar coast are those of Cochin and Mangalore; the former, which has the greatest depth of water, is closed during the prevalence of the south-west monsoon for several months; the latter admits with safety vessels drawing 10 or 12 feet of water only. Small havens and creeks, however, are very numerous along this coast, they are generally estuaries from streams flowing down from the Western Ghâts, a continuation of the same range of hills that runs the whole length of Bombay. The whole coast is, with little exception, low, and either muddy or sandy. From Cape Comorin towards the north-east the coast is little frequented for about 166 miles, the navigation being impeded by a bank known as Adam's Bridge, which connects the Island of Ceylon with the main land of India. Tuticorin, in Tinnevelly district, is an excellent roadstead or haven, affording shelter to ships throughout the year. The shore along the districts of Tinnevelly, Madura, and Tanjore is generally low, rocky, and much beset with reefs. At Calimere Point the Coromandel coast commences, and continues in a northerly direction to lat. 15° 20′. It extends across the estuaries of many rivers, but there is no place where large ships can obtain shelter in all weathers, and they are obliged, therefore, to lie at anchor in the open sea, and be ready to weigh on the first setting in of any gale. The places principally frequented by shipping along this coast are Negapatam, Nagore, Tranquebar, Cuddalore, Pondicherry, Sadras, Madras, and Pulicat, which is the entrance of an extensive lake or inlet. This coast is throughout, with little exception, low and sandy, and the sea very shallow near the shore. From lat. 15° 20′ to the southernmost point of Vizagapatam, in lat. 17° 15′, is the Golconda coast, which is about 269 miles long; here the waters of the Kistna, and the Godavery flow into the sea. Masulipatam and Coringa are the two most important maritime places along this coast. From this point the Orissa coast commences for 234 miles to the north-eastern extremity of this province. Its appearance is bold and rocky, with ragged hills at intervals, but of no great height. Vizagapatam, Bimlipatam, Chicacole, and Ganjam are the chief maritime places along this coast.

Climate.—The climate is more varied by the different elevations of the surface, and by other local circumstances, than by latitude. The table land on the Neilgherry hills is said to enjoy the mild climate of the finest part of the temperate zone. On the coast of Canara and Malabar the heat is tempered by the vicinity of the Western Ghâts and by sea breezes, while on the eastern coast it is very great during the early part of summer. A remarkable circumstance connected with the climate of this part of India is the regular alternations of the opposite monsoons. During the prevalence of that from the south-west, which commences towards the end of spring, a considerable quantity of rain falls in the districts of Malabar and Canara, and in the Western Ghâts it is enormous. As the south-west monsoon dies away the north-east sets in, and continues to blow during October and November, but bringing with it very much less rain than that of the former. The average rain-fall for 1867 was 36·98 inches throughout the Presidency, as compared with 47·67 inches taken as the average fall during the previous five years.

Products.—The most valuable natural product of this Presidency consists of ship timber, which abounds in the forests of Malabar, Travancore, and Canara, such as teak and peon. Sandal wood is also supplied to the Chinese market from this part of India. Of dry crops there are ragi, maize, millet, oil seeds, pulse, yams, and plantains. The cocoa-nut and palmyra palms are largely cultivated on the sandy alluvial tracts; the former for the food and cordage which it furnishes, and the latter for its sap, which, after distillation, forms an intoxicating beverage. The other

principal articles grown are sugar, indigo, tobacco, and spices; and last, but not least, is cotton, towards the improvements of the quality of which Government has paid much attention for some time past. The forests have been for some time placed under the charge and management of a department, with a view to their conservancy.

Languages.—The principal dialects of Southern India are Teloogoo or Tulu, Tamil, Canarese, Malayala; Oordoo, or Hindustanee, is also spoken, being the common language of the Mahomedans throughout India. The variety of tongues is so great that sometimes within a single district as many as four or five distinct languages prevail; as, for instance, in Canara, where Canarese, Tulu, Malayala, and Concanee, languages with little or no affinity, are spoken by different classes.

Area and Population.—The Madras Presidency consists of 141,746 square miles (exclusive of the district of North Canara, which has been placed under the administration of the Bombay Government), and contains a population of 26,089,052, according to the quinquennial census taken on the 1st March 1867. The population of the city is supposed to be about 450,000. The area above named only comprises that under British Government; thus the density will be about 184 to the square mile for the whole Presidency. Of the 26,089,052 which represent the population under British administration, 24,172,822 are Hindoos, 1,502,134 Mahomedans, and 414,096 Christians.

Administration.—The Madras Presidency is divided into five parts called, the Ceded Districts, Malabar, North Carnatic, South Carnatic, and the Northern Circars, These are subdivided into 20 districts, including the city of Madras, under the regulation system, and two non-regulation districts, Ganjam and Vizagapatam. There is a Legislative Council, as in Bengal and Bombay, consisting of four members, one of whom is the governor as president in council; there are also three additional members and four non-official members. In 1862 a High Court was established here, under Letters Patent, absorbing the functions of the Supreme and Sudder Courts; this court is presided over by two barrister judges and three civilian judges, appointed by Her Majesty.

Political.—The feudatory states of Madras are Travancore and Cochin.

The area of Travancore is about 4,700 square miles, and the population, so far as can be ascertained, something over a million, which, according to the latest report received, gives a density of about 210 the square mile. It is stated that the policy of the Maharajah continues to be guided by the same enlightened principles as heretofore, under the zealous administration of his dewan, Sir T. Madava, K.C.S.I. During the year 1866–67 an important measure based upon the Act XX. of 1866 was passed for improving the existing system of registration of assurances. Th new measure for the introduction of the statute of limitations was, however, postponed. The work of the civil courts had again largely increased, principally by the continued pressure into court of suits affected by the law of limitation. The disposal of criminal cases was conducted with increased celerity, and continued to show improvement upon the past. The police, though far from efficient, are still reported to be active. Their salaries have been raised by 1,500*l.*, thus improving the position and *personnel* of the department. The sanitary state of the gaols has been well maintained; the mortality being only a trifle under four per cent. on the average daily numbers. Increased cultivation had added 3,700*l.* to the land revenue. An important measure, connected with land tenures, was passed by His Highness in a proclamation defining the rights of the original proprietors and their tenants respectively. The solution of this long vexed question is calculated to give certainty to the action of the courts, and stability to the respective rights of the parties. Though there is still much to be attained in the department of education, yet the senior branch quite fulfils the expectations entertained. As many as 100 scholars were candidates for the matriculation examination during 1866–67. All the other schools continue to show some advance, and the appreciation of education in all its branches is evidenced by the increasing demand for it. Three additional local hospitals were opened during the year, with other similar institutions. Public works were carried on with vigour. The finances of the State also preserved their wonted elasticity, the receipts amounting to 448,200*l.*, while the disbursements were 436,000*l.*; of the surplus, 12,200*l.*, a considerable increase arose from salt revenue. An interchange of friendly visits took place between the Rajahs of Travancore and Cochin, a circumstance which has no precedent in the present generation.

A similar policy of enlightenment has been carried out by the Dewán to His Highness the Rajah of Cochin, while the executive administration has also been conducted with ability and diligence, and there was every reason to hope that the progressive steps of reform now well instituted, would compete with Travancore, even with the superior advantages of that state. The area of this little state is about 2,000 square miles, with a population of 399,056, or nearly 200 to the square mile. In the judicial tribunals there has been a marked progress, consequent on the measures introduced towards the improvement of the *personnel* of the Appeal Court and in each of the district courts of this State. The enrolment of pleaders has greatly facilitated the action of the courts, which were quite equal to the increased work devolving upon them, and showed greater expedition in the disposal of cases. Equal progress is reported to have occurred on the criminal side. The session court has been abolished, and the cases which came before it are now referred to the Appeal Court, as in Travancore. Their disposal by this channel has tended greatly to expedite justice, at the same time relieving the people from the inconvenience and hardship arising from the delay of a first trial under the former system. The police have improved in efficiency, and gang robberies have by their efforts been greatly reduced and promptly dealt with. The gaols, although densely crowded, with a minimum of ventilation, proved healthy; improvements in them were still in progress. The ratio of mortality in the two gaols were one and a quarter and a little over four per cent. respectively. The land revenue of 1866–67 amounted to 59,000*l.*, or upwards of half the resources of the state, and was 500*l.* in excess of the previous year. Increased revenue was expected from the cultivation of coffee, for which 8,000 acres were taken up during the past year. Customs revenue decreased a trifle, while that derived from salt nearly recovered from the falling off in the previous year. Education continued to prosper. The public works expenditure amounted to about 14 per cent. of the total revenue of the state; the Shoranoor bridge, designed with the view of carrying a railway, has been opened. The total receipts of this state amounted to 108,000*l.* and the disbursements to 102,750*l.*, thus leaving a surplus of about 5,250*l.*

The payments to Carnatic stipendiaries (including jageerdars) amounted to 64,303*l.* during 1867–68. The excess of this sum over the budget estimate was accounted for by the Begum having drawn a large sum of arrears which had been accumulating since 1st December 1865. On the death of the late Nabob of the Carnatic, Government intrusted to Her Highness a sum of 17,376*l.* for distribution to persons to whom it was due, but as she negleced this obligation, Government has been compelled to direct that a portion of the Begum's stipend should be deducted till the amount was refunded. This has now been done and all arrears were being settled.

The number of persons receiving pensions on the 1st April 1868 was 1,210. The lapsed pensions during the previous 12 months amounted to 1,083*l.* per annum in the aggregate, 57 persons having died. Bonuses to the extent of 4,950*l.* were granted in commutation of 128 stipends. Petty claims against the estate of the late Nabob were settled to the amount of 956*l.*, and arrears of salary and pensions amounting to 641*l.* have been paid. A commissioner has been appointed under Act No. III. of 1867, for the settlement of the debts of His Highness Prince Azim Jah.

Military.—The strength of the Madras army at the close of the year 1867–68 stood at 43,927, of which 2,820 were officers; of the aggregate force, 12,244 were Europeans. The general health of the British troops had greatly improved, having been 119·64 per thousand (of sick to strength) less than in the previous year. In the Hyderabad circle alone was there any increase in the ratio of sick, it having been 24·39 per thousand. The mortality among British troops was at the rate of 20·43 per thousand against 21·70 in 1866–67. A similar improvement has to be noticed in the health of the native army; the per-centage of treated to strength fell from 82·91 to 77·7, that of deaths to strength from 1·2 to 0·7, and that of deaths to treated from 1·4 to 0·9.

The budget estimate of the year 1867–68, exclusive of stores sent from England, amounted to 3,046,809*l.*; the regular estimate for the like period was 3,149,787*l.*, and the actual expenditure of the previous year was 3,076,799*l.*

Judicial.—The total number of civil suits brought before all the courts of this Presidency, except the High Court, amounted to 228,625 in 1867, being 4,115 more than in 1866. Of these suits, 168,232, or 73½ per cent., were disposed of,

leaving 60,393 suits pending at the close of the year, or 2,451 less than those pending at the close of the previous year. Of the suits disposed of, 90,121 were ordinary suits, and 78,051 were small causes. 109,531 were decided on their merits, 14,816 were dismissed on default, 40,476 were adjusted or withdrawn. These numbers very nearly correspond with those of the two preceding years; 155,820 were disposed of by Native and 12,412 by European judges. The total value of suits depending amounted to 1,699,635*l.* as compared with 1,748,407*l.* in 1866.

The total number of appeals before the same courts (exclusive of those received by transfer) amounted to 12,358, of which 6,758, or more than half, were disposed of during the year, leaving 5,600, of the value of 175,087*l.*, undetermined at its close. The average duration of appeal suits was 1 year and 25 days before civil judges, 1 year and 13 days before Principal Sudder Ameens, and 1 year 2 months and 18 days before the judges of the Small Causes Courts. The value of appeals pending decreased from 201,973*l.* to 175,087*l.* in 1867. In addition to these, 74,578 applications for execution of decrees, and 169,900 miscellaneous petitions were also disposed of by the lower courts.

In the original jurisdiction of the High Court there were 651 suits, of which 493 were disposed of, leaving 158 suits pending at the close of the year. On its appellate side 146 regular and 790 special appeals came before the court, which disposed of 79 regular and 516 special appeals, and there remained on the files, at the end of the year, 67 regular and 274 special appeals. The average duration of appeal suits disposed of was 3 months and 23 days, and the total value of suits pending amounted to 245,333*l.* Of the civil petitions, 236 were disposed of out of 294 brought before this court; and 45 cases were disposed of out of 51 referred for the judgment of the High Court under Acts XI. of 1865 and XXIII. of 1861.

The High Court disposed of 207 criminal petitions, of which 142 were dismissed, 19 confirmed, 17 amended, and 24 reversed; it confirmed 63 of the 75 sentences of death referred for confirmation by the sessions courts; 67 references were made to it under section 434 of the Code of Criminal Procedure; and it received 1,812 calendars of cases tried by the session courts, and revised their proceedings, passed upon appeal or upon review of the calendars of the magistracy, in 307 cases.

The aggregate number of criminal offences committed during the past year throughout this presidency was 132,386, or about 10·1 per cent. less than in 1866, and 6·8 per cent. less than the average of the three preceding years. The number of persons concerned in these offences amounted to 273,689, but the number arrested and proceeded against was 173,485, the proportion to population being 1 in 142, whereas in 1866 it was 1 in 128; out of this number, 56,682, or 32·6 per cent., were acquitted or discharged, and 116,803, or 67·3 per cent., were convicted or sentenced; these proportions were nearly the same as in the previous year. The number of persons punished decreased from 134,378 to 119,549 in 1867, or about 11 per cent., but this was an increase over the number in 1865. 96 persons were sentenced to death; and only 186 were sentenced to transportation, as compared with 537 in 1866, being a decrease 65·4 per cent. 49,403 were sentenced to imprisonment, which showed a decrease of 26·6 per cent. from the famine year 1866, though an increase over the years 1864 and 1865. The number whipped also fell from 6,078 to 3,307, or nearly one-half. It was reported that the Whipping Act worked satisfactorily, and that this kind of punishment had a certain deterrent effect in the prevention of crime.

Police.—The total strength of the police force amounted to 24,967 men, which was less than the sanctioned establishment by 823, or about 3·4 per cent. At the close of the previous year the force was only 1·6 per cent. below strength. The general rise of wages, and the extension of the railway and irrigation works, combined with other causes, operated to increase the difficulty of obtaining recruits for the police. The Madras town police have been incorporated with the general force of the Presidency under Act VIII. of 1867, and have thus become subject to the control of the inspector-general. This change had worked satisfactorily in securing co-operation with districts in the interior and greater exactitude of system.

Exclusive of purely state services, the proportion of police to the inhabitants was 1 to 1,127; in rural parts it was 1 to 1,224, and in towns 1 to 500. The proportion of police to area was 1 to 5·6 square miles.

The total cost of the police, including village watchers, amounted to 380,058*l.*

Of this, 29,020*l.* were debitable to purely state services; the actual cost was therefore 351,038*l.*, or about 14*l.* 1*s.* 2*d.* for each policeman. Of the above sum, 28,560*l.* were contributed by municipalities. The casualties amounted to 15·6 per cent. of the whole force against 14 per cent. in 1866. This increase was under the heads of dismissed, discharged, and resigned; but the deaths were fewer, the rate of mortality having been 12·5 per 1,000 against 20 per 1,000 in 1866. In the town of Madras the death rate was only 6 per 1,000. Of the whole force, 44·3 per cent. were treated in hospital during the past year against 42·5 per cent. in 1866. The southern range was the healthiest, showing only 28·4 per cent., while in the northern and western ranges the per-centages were 65·4 and 53·1 respectively. Out of 23,616 men, 14,327, or 60·6 per cent., could read or write, showing a slight improvement on former years. The number of accidental deaths which came under the cognizance of the police are reported at 7,608, against 6,981 in the previous year; of these, 1,290 persons (of whom 62 per cent. were females) committed suicide. 6,680 fires occurred, by which 32,416 houses were burnt, involving a loss of property to the value of 71,803*l.*, and 156 lives were lost.

Following a year of famine the season of 1867 was one of greatly reduced prices, although they stood higher than the average of five years preceding 1866. In some localities considerable pressure of scarcity was still felt. Diminution of crime had exceeded anticipation, notwithstanding which the ratio of detection was slightly lower than in the previous year, though higher than in the years immediately preceding. The per-centage of convictions to arrests had also improved, and the recovery of property was somewhat less, but equal to the average of the four preceding years. The number of cases reported was 55,116 against 62,556 in 1866, thus showing a decrease of 11·9 per cent.; 30,732 cases were detected, while in 1866 there were 36,097; the persons arrested amounted to 79,420 as compared with 94,345 in 1866, of whom 58,083 and 68,634 were convicted in the respective years under review; the property lost amounted to 107,331*l.*, of which only 22,857*l.* had been recovered, while in the previous year 30,570*l.* had been recovered out of 121,211*l.* lost.

European vagrancy was reported to be on the increase, and the assistance of legislative action had been called for.

Registration of Assurances.—The total number of registrations increased from 100,425 to 108,931 in 1867–68; of these, 97,172 instruments referred to immoveable property, 78,129 having been compulsory, and 19,043 optional. The total value of the transactions registered for the past year amounted to no less than 4,702,144*l.*, and the collections to 28,077*l.* As the total cost of the department was 22,253*l.*, there remained a surplus of 5,824*l.* on the year, which added to the surplus of the preceding year cleared off the existing deficit, and left a balance of 397*l.* During the past year four sub-registry offices were abolished.

Revenue.—The season of 1867–68 commenced hopefully, but ended gloomily. It was unfavourable to agriculture in two districts, Coimbatore and South Arcot, still more so in Tanjore, Madura, Salem, Nellore, and Cuddapah, and disastrous in Madras and North Arcot. Before the close of the year serious cause was seen for apprehending famine in several districts, and vigorous measures were consequently taken to meet the emergency with a view to relieving the existing distress. In the northern districts the season was good, but only fair on the western coast and in the districts of Kistna and Trichinopoly. The steady increase in the prices of staple articles of consumption has been somewhat checked for the first time since 1860–61. The plentiful harvests at the end of 1866–67 caused a decline in the rates below those of 1864–65, though they were higher than in 1863–64.

With the exception of the income tax there was an increase under every source of revenue as compared with the previous years. The aggregate receipts and charges for the past five years, and the per-centage of charges to revenue, is shown in the margin. The area under cultivation increased by 353,286 acres, or two per cent. upon the previous year, but the assessment on the other hand decreased by 21,239*l.*, owing to the want of rain, which in many places necessitated the relinquishment of any attempts to cultivate highly assessed irrigated lands. The area under cotton culture varied but little, the increase being only 65,533 acres as

	Receipts.	Charges.	Per-centage of Charges.
	£	£	
1863-64	6,232,476	579,446	9·3
1864-65	6,260,148	632,960	10·1
1865-66	6,331,713	666,856	10·5
1866-67	5,621,374	617,227	10·9
1867-68	6,569,027	653,211	9·9

compared with eleven months of the previous year; the total extent of cultivation was 1,462,432 acres, which, though more than in 1866–67, was less than in the three preceding years, and greater than the extent cultivated in the years 1858–59 to 1862–63 inclusive, the average for which period amounted to 1,087,847 acres.

The trade of this Presidency had also revived. The principal articles imported which showed an important increase were cotton piece goods, paddy, metals, railway stores, and spices; the largest decrease was noticeable in twist, rice, wheat, grain of sorts, and seeds, while in exports, cocoa-nuts, coffee, cotton wool, indigo, oils, seeds, and spices increased, and rice, grain of sorts, and sugars fell off, as compared with the previous year. The export and import of bullion showed a further diminution, the excess of the latter over the former amounted to 113,789*l.*, which was less than it had been for the last 12 years.

The Revenue Settlement Department conducted operations in five districts. The total area demarcated was 598 square miles, and 1,196 square miles had been classified. The total expenditure incurred amounted to 23,576*l.* Survey operations were carried on in 11 districts; 1,812 villages, containing 4,395 square miles, were surveyed, of which 912 villages, embracing 2,089 square miles, were duly mapped. The total expenditure amounted to 59,250*l.*, against 52,947*l.* in 1866–67.

The permanent addition to the annual revenue in the nine years during which the Inam Commission has been at work has been 95,000*l.*, while the total cost has not exceeded 110,000*l.*

The receipts of the Forest Department amounted to 42,418*l.*, and the charges to 27,284*l.*; but owing to a falling off in the value of timber in stock at the close of the past year, the net profit was only 6,762*l.* Improvements have been introduced in the system of conservancy, and a new lease on favourable terms for 99 years has been secured of the valuable teak forests in South Malabar.

Owing to the failure of the monsoons the past year has been somewhat unfavourable to the cultivation of chinchona. The total number of plants at the close of the year was 2,353,370, as compared with 1,926,044 in 1866–67. Satisfactory results have been obtained from the analysis of the different specimens of barks, and a discovery has been made in the Neilgherry districts of certain economic products of great importance in reference to the question of alkaloid manufacture.

Public Works.—The marginal statement annexed exhibits the total grant allotted for public works during the past year, and the amount actually expended, from which it will be seen that the expenditure was less on the works taken in hand than the allotment by 48,221*l.* It may be mentioned that it exceeded that of 1866–67 by 16,396*l.* The amount expended from local funds not included in the above amounted to 132,082*l.* for the past year.

	Allotment for 1867–68.	Expenditure.
	£	£
Works and repairs -	675,024	626,803
Establishments, tools, and plants.	172,128	172,034
Total - -	847,152	798,837

Rates of labour had a tendency to rise in certain districts.

During the first half of the past year but little progress was made in the works of the Irrigation and Canal Company, but since that time there was sufficient advance to justify an expectation that the upper 72 miles of the main canal would be ready for the admission of water so soon as the river Toombudra could afford a supply.

Marine.—Under the Merchant Shipping Act of 1867, Government have issued rules, forbidding vessels to proceed to the United Kingdom without a proper supply of lime juice, and for the medical examination of seamen prior to engagement, but this latter measure had not been enforced, inasmuch as it was permissive rather than imperative, commanders of vessels preferring to run the risk of shipping a diseased seaman rather than pay the requisite fee. An Act has also been passed for the purpose of amending the laws relating to the levy of port dues in this Presidency, by which the ports are grouped into two divisions, eastern and western, according to the coasts; it abolishes the distinction between European and native craft, and establishes three classes of vessels, rateable in different degrees; and the various port funds have been consolidated into one. The maximum rate of dues hitherto leviable was three annas, equal to about 5*d.*, the ton, but this had been levied only at two ports, while at the others the rate was about 3*d.* The new rates will now be doubled.

Several wrecks occurred during the past year on the Coromandel coast, but only two were not attributable to any stress of weather. The number of coasting steamers had considerably diminished in consequence of their services having been engaged for the Abyssinian expedition. A severe cyclone struck the coast about Vizagapatam on the night of 29th September 1867, causing considerable damage to the shipping, and a second was felt on the eastern and southern parts of the Bay of Bengal in the beginning of November following.

Finance.—The total amount of revenue realized from all sources during 1867–68 amounted to 7,374,730*l.*, thus exceeding the income of the past two years, as will be seen in the margin. The increase in expenditure appeared to be principally under the head of Public Works. The actual cash balance at the close of 1867–68 amounted to 2,454,580*l.*, and the remittances to other Presidencies during the year were 1,555,000*l.*, viz., 1,280,000*l.* to Calcuttta, 250,000*l.* to Bombay, and 25,000*l.* to Coorg.

	Actuals.	
	Income.	Expenditure.
	£	£
1865–66 - -	7,256,440	5,673,679
1866–67 (11 months)	6,539,832	5,551,335
1867–68 - -	7,374,730	6,521,800

Similar circumstances, which were unfavourable to the importation of bullion in 1866–67, prevailed during the past year, and consequently but little silver was received into the Mint, and the operations were confined to the coinage of about 3,000*l.* worth of copper coins. The value of silver coined amounted to 34,766*l.* against 148,079*l.* in the previous year, and that of copper fell from 19,500*l.* to 3,000*l.* in 1867–68.

The transfer towards the close of 1866–67 of the Exchange Department from the Bank of Madras to the Currency Office had the effect of considerably reducing the nominal circulation of paper currency, as, with the cessation of the premium on the circulation which had been paid to the bank, it was no longer an advantage to hold its reserve in notes, and consequently the stock held by the bank had ever since been much smaller than at any previous time. The circulation had since been steadily rising; during the past year the nominal circulation rose from 628,881*l.* in April 1867 to 770,100*l.* in March 1868, and the notes in actual circulation from 398,006*l.* to 450,911*l.* on the same dates. The average for the whole year was 402,438*l.* The operations of the Exchange Department showed that the notes issued for cash or other notes amounted to 150,191*l.*, and the cash issued in exchange for notes was 280,189*l.* The number of notes issued by the same circles during the past year was 142,359, of the value of 1,230,726*l.*, while that of notes received was 138,224, of the value of 1,100,968*l.* Currency notes have been issued freely at all the Government treasuries of the districts; the demand for notes was greatly in excess of the notes presented for cash, but no inconvenience had arisen from the accumulated sum paid into the treasuries by the public in exchange for notes. The number of notes withdrawn from circulation and cancelled during the past year was 127,863, of the value of 993,895*l.* The receipts of the department amounted to 15,213*l.*, and the disbursements to 4,228*l.*, showing a profit of 10,985*l.*

Education.—The number of colleges and schools connected with the Educational Department had increased in 1867–68 from 1,386 to 1,687, and the number of pupils from 51,118 to 62,975, thus exhibiting an increase of 302 schools with 11,857 additional pupils. The aggregate expenditure amounted to 84,340*l.*, of which 70,755*l.* was disbursed for instruction alone, and did not include the charges of direction or inspection; of this last sum, 57,489*l.* was from Imperial and 13,266*l.* from local funds. Deducting the amount of fees received and the sum realized from sale of books, which came to 5,970*l.*, the net expenditure for 1867–68 amounted to 78,370*l.*, giving 1*l.* 4*s.* 10*d.* as the average net cost of each pupil.

The results of the examinations held by the university show that out of 1,457 candidates, 479 passed, of whom 215 were from Government institutions, and 264 from private institutions. The new rules that came into operation during 1867–68, under which candidates at the matriculation examination are required to secure one-third of the maximum marks in English, instead of one-fourth, had not the expected result of reducing the number of candidates, for 1,069 presented themselves, against 895 in 1866–67.

Emigration.—No emigration was carried on with any British colony during the past year. The total number of returned emigrants from the Mauritius amounted to 449. The French Government, however, sent 1,426 emigrants to Guadaloupe

and Martinique. Owing to the demand for labour on railways in progress, to favourable agricultural prospects, and the cheapness of food, emigration diminished throughout this Presidency.

Municipal.—Considerable alterations have taken place in the Municipal Commissions of this Presidency. Under Act IX. of 1867 the town of Madras has been divided into eight districts, from each of which four persons are appointed commissioners, the president being appointed by Government. The receipts of the past year amounted to 55,026*l.*, exceeding those of 1866 by 6,271*l.*, and the expenditure was 43,319*l.*; the balance which remained to credit of the municipality amounted to 11,907*l.* at the end of the year.

There were 41 municipalities constituted under Act X. of 1865 among the principal towns of the Presidency. In two or three towns, where the exclusive religious element preponderated, much opposition and angry feeling were shown, but the objects of the Act having been clearly explained and carefully introduced, it has been carried out with great heartiness by the Native commissioners. The total receipts of these municipalities amounted to 94,515*l.*, and the disbursements to 81,392*l.*, thus leaving a balance of 13,123*l.* at the close of 1867–68.

Medical—Public Health.—The public health has been satisfactory throughout this Presidency, especially as compared with the previous year. There was no general outbreak of the cholera, the disease proved most unusually amenable to treatment, and the death-rate was remarkably low. Small-pox had, however, been very prevalent, especially in the Malabar district, where it caused great mortality. Fever was more widely spread and more deadly than usual. Cattle disease, combined with want of pasturage and water, caused heavy losses. The necessaries of life have not been scarce in any part of the Presidency.

Eight new dispensaries were opened during 1867–68, whose total funded capital increased from 34,220*l.* on 31st December 1866, to 58,710*l.* on the same date of 1867. The total number of sick poor who obtained relief from these institutions numbered 278,276, which, as compared with 240,314 in 1866–67, showed an increase of 27,962. The per-centage of deaths to treated was 0·4, which was very little less than that of the native army, viz., 0·9. In the health of prisoners in gaols a most striking improvement was observable, the per-centage of those treated to the average annual strength having fallen from 120·1 to 104·1 in 1867-68, that of deaths to strength fell from 11·6 to 3·9, and the per-centage of deaths to treated from 9·6 to 3·7. These comparisons would seem to indicate that while the improvement was no doubt in a great measure owing to the general healthiness of the year, yet some credit was due to the sanitary and conservancy arrangements, as well as to better dietary and less overcrowding in most of the gaols.

The number of persons vaccinated had increased from 216,384 to 274,582 in 1867–68, of which 246,574 cases, or 89·83 per cent., had been successful, against 189,472, or 87·56 per cent., of successful cases in 1866–67.

Mysore.

Physical Outline.—Mysore is a raj or principality, in southern India, under the protection and management of the British Government. On the north-west it is bounded by the districts of North Canara and Dharwar in the Presidency of Bombay, while on all other sides it is surrounded by the Presidency of Madras, except on the south-west, where the British district of Coory intervenes. It is about 250 miles in length from north to south, and its extreme is about 230 miles. The country is a table land, and of somewhat quadrangular form, with great variety of elevation. The eastern and western Ghauts skirt this province, forming a junction at the southern extremity in the Neilgherry hills. Many rivers of Madras find their sources among the hills of Mysore. There are no natural lakes, but those of artificial construction and tanks are numerous.

Among the most remarkable geological features are the Droogs, which are huge isolated rocks, rising abruptly to heights varying from 1,000 to 1,500 feet, with bases seldom exceeding two miles in circumference, and chiefly composed of granite, gneiss, and hornblende. Gold dust has been found, but, there is no metal, except iron, in any quantity.

The means of internal communication within this principality are considerable, the judicious expenditure of past Governments having produced a great amount of public benefit; moreover, there is a branch of the Madras Railway to Bangalore.

This territory was first assumed charge of by the British in 1832, its administration is vested in a commission appointed by the Government of India, and it is partitioned into three divisions, with an average area of 9,000 square miles to each.

Climate.—As the elevation of Mysore is about 2,000 feet above the level of the sea, the temperature is sensibly less than in the lower tracts towards the coast. At Bangalore, which is about 1,000 feet higher, the thermometer has been found not to rise above 82° in the shade, and the general average at noon in the shade is about 76°. The nights are seldom hot, the mornings and evenings always cool, and there is an elasticity in the air which is extremely delightful. After the end of January the heat increases, until the setting in of the south-west monsoon, about the commencement of June, which is followed in September by the north-east monsoon. From the circumstance of the country being exposed to both, more rain falls here than in most parts of India. The monsoon from the former quarter is the more violent, filling the largest tanks in a few hours, and lasting for several days without intermission, accompanied by much thunder and lightning.

The season of 1866–67 was one of drought and famine, owing to the failure of the rains in 1866, the tanks upon which cultivation mainly depended were thus deprived of their supply of water, and agricultural operations were entirely suspended. Such a visitation had not been witnessed since 1833, shortly after the assumption of the country. Every measure was, however, taken to give employment in public works to the able-bodied poor, and towards arresting the disastrous consequences which ensued from the suddenness of the calamity. The season of the following year, 1867–68, was much more favourable, notwithstanding a partial failure of the north-east monsoon.

Area and Population.—Mysore is divided into three provinces or divisions named Astagram, Nuggur, and Nundydroog. The area of the three divisions comprising the territory of Mysore, covers 27,003 square miles, and contains a population of about 3,929,715, thus showing a density of 145 to the square mile, or a little less than that of the Austrian empire; though in point of size, this territory is not so big as Scotland where the area is stated to be 30,685, with a density of population of 101 to the square mile. The population of 1867–68 showed an increase of 20,594 on that of 1866–67, while the census of the latter year was less than that of the previous year by 15,000, but as 1866–67 was a year of famine the increase may be viewed rather as the natural accompaniment of a comparatively good season, and the result of a return to their homes of those who had been driven to seek their livelihood elsewhere. The rate of mortality during the past year was about $7\frac{1}{2}$ per thousand of the population, while in 1866–67 it was given at $12\frac{1}{2}$ per thousand, the number of deaths in the respective years having been 28,285 and 47,293. Of the number last named, 18,504 deaths were from cholera, whereas in 1867–68 only 182 deaths were said to have occurred from the same cause. Fever of a virulent character had prevailed in different parts of this province.

Political.—His Highness Maharajah Kistnaraj Wodiar Bahadoor, K.G.C.S.I., Rajah of Mysore, expired on the 27th March, 1868, after a short illness. The late Rajah was placed on the musnud in 1799, and assumed the reins of power in 1810. Owing to protracted misrule, and the oppression exercised by his officials, the Government of India was compelled in 1831 to interfere in the interests of the people, and to march troops into the province in order to subdue that which had become a formidable rebellion. This extreme measure was adopted by Lord William Bentinck, and was not carried out till repeated though fruitless remonstrances had been made both by the Government of India as well as that of Madras, on the subject of the Rajah's maladministration, and the salutary advice given to His Highness was neglected and despised, even though it was pressed upon him personally by Sir Thomas Munro, with all the weight of his authority. Although the Rajah in the most pertinacious manner urged his claim to restoration, that request was as persistently denied by Her Majesty's Government. Having failed to secure for himself that which he so ardently longed for, the Maharajah adopted a successor in June 1865, who received the name of Chamrajendra. In April 1867 Her Majesty's Government recognized the prince as successor of the Maharajah, and on the death of the latter, the young chief was formally proclaimed as Maharajah of Mysore. The present prince is about six years old, and is being trained in such a manner as will enable him to fill in a worthy manner the exalted station to which he is destined. The number of dependants and followers of the

late Maharajah amounted to more than 10,000, but steps have been taken towards reducing these overgrown establishments, as well as to liquidate outstanding demands, and to adjust on a liberal footing all claims of old and faithful servants.

Military.—The strength of the local troops in 1867–8 was 2,164 for cavalry, and 2,531 for infantry, thus making the force 4,695 of both arms. Of this number, 2,770 were Mussulmans, 930 were Mahrattas, and 106 were Christians. The total cost amounted to 109,641*l.*, of which the expense of the cavalry came to 80,708*l.*; one regiment of the cavalry was disbanded during the past year by order of the Government of India, and the saving thereby effected was appropriated towards increasing the pay of the remaining six regiments. The pay of the infantry had also been raised at the rate of 2*s.* per man since 1st March 1868.

Revenue.—The total demand for land revenue amounted to 1,217,059*l.*, of which 1,119,832*l.* had been collected; the balance at the end of 1867–68 was 96,842*l.*, or nearly 8 per cent of the gross revenue, against a proportion of 14 per cent. at the close of the previous year. This improved result was due to the reduction of the number of instalments in which the land revenue was collected. The settlement for the past year was 35,653*l.* in excess of the previous year, the largest item being 25,593*l.* on account of waste land brought under cultivation. The revenue from forests showed an increase of upwards of 10,000*l.* arising from the sale of timber remaining undisposed of in 1866–67. That derived from Abkarree showed an advance of 4,091*l.* The net increase from customs was 15,199*l.* The revenue work in the civil suits was heavy, although the number of cases was fewer than in the preceding year by one-fourth, which was attributed to the application of the stamp and registration acts.

Judicial.—If the value in litigation be taken as a fair indication of the wealth of the people, it may be concluded that the people of Mysore have nearly recovered from the effects of the scarcity of the previous year, for while the number of civil suits increased from 12,342 in 1866 to 13,455 in 1867, the value in dispute rose from 166,132*l.* to 205,874*l.* in the same period, and 7,331*l.* more than in 1865, while the net increase in the number of civil suits had been 1,113 as compared with the previous year. The increase in suits on written promises for sums certain has been 1,018. The increased use of writing as a security for payment may therefore be accepted as evidence of progress; but for money not so secured, there was a decrease in the number of suits. The increase of litigation in this province during the past year was attributed to various causes, but it would appear on closer examination to be nothing more than a return after the famine to the ordinary state of affairs, and to be therefore but nominal. The number of suits for disposal was 14,592 including arrears and those transferred; of these, 14,253 were disposed of during the past year, and those pending at the close of the year 39 against 444 in 1866. The value of suits disposed of amounted to 226,935*l.* against 139,502*l.* in 1866, thus showing an increase of 87,433*l.*; the average value of each suit disposed of was 16*l.* 10*s.* 6*d.*, and the average duration of each suit was about 30 days.

The number of civil appeals instituted shows a decrease from 2,092 in 1866 to 1,193 in 1867, which is attributed in a great measure to the improvement in the disposal of original suits. The adoption of oral hearing doubtless tends to discourage vexatious appeals; but the main cause of the diminution is to be found in the introduction of the new Stamp Act. Another cause for the reduction is the abolition of appeal from the assistant to the deputy superintendent, the appeal now being direct to the superintendent. The balance of appeals remaining at the close of 1867 was 38 as compared with 89 at the same date in 1866, and the average duration of each appeal was 44 days against 54 days during the previous year. The number of applications for the execution of decrees had increased from 7,362 to 8,190, but the miscellaneous cases fell from 185,191 to 178,963 during the past year.

The most important alteration which has been lately made in the civil procedure of Mysore, is the introduction of the system of oral hearing. Formerly, parties to appeals were sometimes heard and sometimes not. The courts were not generally built so as to be very accessible, no great regularity was observed in hearing appeals on fixed days, and it was the interest of the subordinate officials to discourage the personal attendance of suitors, while pleaders were admitted only by permission of the judges. The demoralization of such a system, which placed it in the power of subordinate officials to make representations behind the backs of parties to a suit, was very great. The system of oral hearing is peculiarly fitted to the characteristics of the Dravidian races of Southern India, who it is alleged will

be content with any decision so long as the judge will attentively listen to their story; they are a talkative people to whom litigation is a pastime and they dislike having their affairs settled behind their backs, while the poorer classes entertain a horror of the intervention of subordinate officials. The orders issued by the judicial commissioner have accordingly produced the best effects.

No great alteration has been made in the powers of the several courts established in this province for the administration of criminal justice, except such as may have arisen from the degrees of magisterial authority enforced from time to time on the executive officers of Government.

The statement in the margin will exhibit the degree in which crime decreased in 1867 as compared with the previous year. This decrease was chiefly owing to the more abundant harvest and to the fall in prices, but it was also due to the increased efficiency of the police, and to the assistance given by the ryots, particularly in one district, towards the apprehension of offenders. While there was thus a diminution of crime in the aggregate, and particularly of simple theft, the numbers of which fell from 7,663 to 5,417 in 1867, there has been an increase in crimes of violence, such as robbery, murder, and homicide, and of ingenious fraud, such as forgery, offences relating to coinage, and breach of trust. It was reported that those who in the time of scarcity had separated themselves from society for purposes of plunder, and those who, under similar pressure, had learnt the art of preying upon their fellows, were slow to return to honest labour on the return of a good season.

	1866.	1867.
Offences reported - -	25,365	19,899
Persons under trial - -	35,006	29,098
„ acquitted - -	18,243	16,472
„ convicted - -	16,504	12,542
„ died, escaped, &c.	58	16
„ remaining - -	201	68

The proportion of those brought before the criminal courts to the population was about one per cent. The number of witnesses who attended was 43,836 against 74,047 in 1866. The per-centage of convictions was 43·23; of acquittals 38·30; and of those discharged before trial was 18·47.

There was an increase in the number of persons who appealed against criminal sentences from 566 in 1866, to 796 in 1867, which is accounted for by a more general knowledge among the prisoners of their right to appeal, and by the facilities afforded to them to do so. The number of sentences reversed or modified amounted to 162 as compared with 166 in the previous year. There were 6,700 cases in which appeal might have been made, but in 479 only, or 7·15 per cent., was that right exercised, and there were only 5 cases pending at the close of the past year.

Registration of Assurances.—Registration in Mysore is still in its infancy, its benefits being imperfectly understood both by the officials and the people; the penalties on non-registration are however beginning to produce their result. The department at its present early stage has not been a financial success, but no doubt is entertained that the ultimate effect of registration will be to raise the stamp revenue. The total number of voluntary registrations for 1866 was 4,144, but excluding from this calculation 1,400 old documents executed prior to 1st January 1866, and for the registration of which the period of one year was allowed expiring on the 31st December 1866, there remains a total of 2,744 as optional registrations proper for that year against 1,877 in 1867, or a proportion of 47 per cent. to the total registration in 1866, while in 1867 it was but 30 per cent. This decrease was in a slight degree due to the fees having been raised during the past year, but chiefly to the fact that the difference between optional and compulsory registration was becoming known, whereas in 1866, many persons supposed that all documents must be registered alike, and ascribed to the mere practice of registration a potency of effect not contemplated by the Act. The penalties consequent upon non-registration will, however, remedy this in the future.

The compulsory registrations amounted to 3,107 and 4,408 respectively in 1866 and 1867, showing an increase of 1,301 documents or about 41·9 per cent. The fees and penalties realized increased from 973*l.* to 1,623*l.* in the same years. Of the total number, 5,772 documents related to immovable property in 1867, against 4,459 in 1866, while those relating to moveable property were 513 and 1,392, respectively, showing a decrease of 879 in the latter, and an increase of 1,313 in the former class. The per-centage system of remunerating sub-registrars which came into operation on the 1st January 1868, by giving them a more direct and pecuniary interest in extending registration and consulting the convenience of parties is expected to have the effect of increasing the number of optional registrations hereafter. The average fee on registering a document in 1866 was about

2*s.* 4*d.*, while in 1867, with a higher scale during the first half of the year, it was about 3*s.* 8*d.*

Turning to the financial results of this department, in 1866 the deficit naturally incident to a first organization was 1,107*l.* In 1867, however, the balance in favour of the department amounted to 228*l.* making it self-supporting, although the amount of work performed was small and certain fixed establishments had to be kept up.

Police.—Act V. of 1861 was introduced into the town and district of Bangalore in 1866. But the funds necessary for raising the police to a state of efficiency have only been recently sanctioned, and the re-organization of the force was therefore still under consideration. The inadequate pay of the police in the town of Bangalore has prevented any marked improvement in the lower grades, the increased vigilance and better discipline already observable was due to the personal exertions of the superintendent and his European inspectors. The "beat" system has been enforced both in the town and cantonment; discharged convicts have been carefully watched, and in some instances have turned to honest ways of living; and the result has been improved detection, and a considerable diminution of crime. In the province generally no organic changes have been made in the constitution of the police, the subject was under consideration, its settlement having been delayed by difficulties arising out of the actual and prospective political situation. Increased attention had been paid to the police by district officers and the returns show some indications of success in the detection of crime.

The total strength of the police throughout the province was 26,204 men, the cost for which amounted to 58,377*l.*, the average cost of each policeman being about 2*l.* 4*s.* 6*d.* The number of cases reported by them in 1867 was 19,899 against 25,365 in 1866, in which 38,466 persons were concerned as compared with 51,324 in the previous year; and the amount of property involved was 50,471*l.* in 1866 and 30,929*l.* in 1867; thus the decrease in the number of cases reported was 5,466; in the number of persons apprehended 12,858 and in the property involved 19,542*l.*; of persons arrested without warrant about 33·5 per cent. were convicted; and of those arrested or summoned through the intervention of a magistrate 37·9 per cent. were convicted. These results may be considered satisfactory as regards the administration of the police of Mysore.

Education.—At the close of 1867-68 there were 64 Government and 46 grant-in-aid schools with 2,797 scholars at the former and 4,138 at the latter; of the total number of pupils 4,424 were Hindoos, 1,398 Mahomedans, and 1,113 Europeans and Eurasians. In addition to these the number of pupils attending indigenous schools amounted to about 22,000, unconnected with Government. Nine new schools have been established, and the Rajah's school at Mysore has been placed under the direct management of the educational department. The suggestions for the establishment of female normal schools were submitted for the consideration of the principal native officials but found to be impracticable under present circumstances in this province, but with regard to female education generally the native gentlemen agreed as to the necessity of some steps being taken, and an experiment will accordingly be made as a commencement in this direction at Bangalore.

Public Works.—The allotment under budget orders for public works in this province was 187,149*l.* and the expenditure for 1867-68 was 157,133*l.* thus showing a net saving of 30,016*l.*; the bulk of the outlay was on account of "communications" including roads, bridges, &c.; "agricultural" including irrigation and such like; and "civil buildings;" the establishment including tools and plant came to 39,459*l.* the outlay from local district funds amounted to 32,260*l.*, of which 14,722*l.*, was expended during the past year, entirely upon village and district roads, with the exception of small sums for wells and trees connected with them; much good work has been done both in the past and previous years, and the direct benefit of these cross roads was reported to be of great value to all classes of the community but particularly to landholders.

Municipal.—There were in this province in 1867-68, 12 municipal institutions, which have grown up during the past five years, and whose income and expenditure amounted to 16,516*l.* and 13,722*l.* respectively. The operations of Bangalore Cantonment Municipal Board have been carried on comparatively on a large scale. New thoroughfares have been opened through some of the foulest localities, and the dirtiest streets have been shaped and defined by stone drains on either side. The latrine refuse is eagerly sought for by the ryots, but it was difficult to obtain. In Mysore a clock tower and certain market gateways were in course of erection.

Some seven miles of road have been metalled, six miles more had undergone repairs, and considerable attention had been paid to drainage. The income of the Mysore municipality was derived chiefly from the dues levied on tobacco, betal-nuts, ghee, piece goods, and other articles. In other towns the amounts at the disposal of the respective municipal committees have been usefully applied towards carrying out necessary improvements.

Finance.—There was some apprehension that the effects of the drought which prevailed in 1866–67 would have extended into the following year; but these fears were not realized, owing to the timely rains, to an improvement in agricultural prospects, to the extension of cultivation, and to other causes. The actual income from land exceeded the budget estimates, by 46,375*l.* in all districts except three, and was more than that for 1865–66, a year remarkable for its financial prosperity. The revenue from sayer customs had declined since 1865, when export and import duties were abolished by order of the Government of India. The actual collections from forest revenue exceeded the estimate by 1,855*l.* The Abkaree revenue showed a considerable decline since 1865–66, but was an improvement over the 11 months of 1866–67; under recent arrangements at the Bangalore distillery it was expected that this revenue will be restored to its former figure. The drought of 1866 was still apparent in most of the districts where other sources of obtaining Abkaree revenues had been affected by it. Assessed taxes realized an increase, and that derived from stamps showed a progressive improvement since 1862, when the local regulations were revised, and a more rigid system introduced. An increase was also visible under other heads of the revenue of this State.

The cash balance in all the treasuries was 77,648*l.* better in 1867-68 than that at the close of the previous year.

A money order system has been established in Mysore since the commencement of the past year, and has worked without the slightest difficulty. The extension of the system to places beyond the head-quarters of districts was much to be desired, but a difficulty existed in finding agents with a competent knowledge of English and accounts; an office, however, had been established in a village where it had been shown that the profit of the department was about 60 per cent. on the cost of the maintenance.

The transactions in Madras currency notes during 1867–68 showed a marked increase over the previous year, while those of Bombay fell in an equal degree. The practice continued to work conveniently both to the public as well as to the treasuries, with every possibility of further extension.

Agriculture.—The past season has been favourable, on the whole, to agriculture. The price of grain fell in all the districts, in many cases as much as 25 and 50 per cent., as compared with 1866–67, but it was not less than in the year 1865–66. There was not the same mortality among cattle as in the previous year, the number of deaths having fallen from 373,875 to 89,671 in 1867–68.

The growth of cotton is somewhat limited in this part; the land devoted to its cultivation was less than that of the previous year by nearly 4,500 acres.

Notwithstanding certain drawbacks there has been a considerable increase of revenue derived from coffee, amounting to about 6,316*l.*, although the area under cultivation was not much larger than in 1866–67, and although the yield was heavier, it was believed that a portion of the crop of the previous year was not exported till 1867–68, when it became liable to the Government excise of 3*d.* a maund of about 80 lbs. There were as many as 216 European and 19,030 native owners of coffee estates in Mysore; the former cultivated 31,467 acres, and the latter 67,758 acres.

Chinchona cultivation continues to thrive in these parts.

Forests.—The operations of the forest department were confined to the examination of forests and inspection of land applied for by private persons, the selection and demarcation of Government reserved forests, and their protection. The general financial results were, however, favourable; the surplus of receipts over expenditure having been 27,352*l.*, as compared with 21,745*l.* in 1866–67.

Survey and Settlement.—Up to the 31st October 1867, 2,359,228 acres had been measured, 1,377,036 acres classed, and 964,948 acres settled, at a cost of 34,762*l.*; since that date and to the close of the year 367,082 acres have been measured, and 377,119 acres classed, in addition to the foregoing, but the information of the total cost of the survey had not been supplied.

Medical.—The season of 1867–68 has been a very healthy one, no unusual amount of sickness having prevailed. There was only one case of cholera in the

whole of the Nundydroog division. Small-pox has been less prevalent than usual. In the Pettah hospital at Bangalore the in-patients had decreased in number, but the out-patients had increased considerably. The death-rate was 6·25 per cent., and much lower than in the last few years. The general health of the inmates at the lunatic asylum has been good; the death-rate in this institution was 8·5 per cent., which was not thought excessive, considering that all the patients suffer more or less from brain disease. The mortality in the leper asylum was very high, having been at the rate of 28 per cent., but it must be borne in mind that this unfortunate class seldom or never recover when attacked by any illness other than the specific malady from which they suffer. The Bowring Civil Hospital and Dispensary has worked most satisfactorily; the steady increase of patients resorting to it afford sufficient proof that the manifest benefits conferred by European treatment were being more and more appreciated. The new building has been in occupation since 1st February 1868, and the increase of patients during the two months it has been opened has been considerable. The rate of mortality to those treated was 14 per cent., of which 4 or 5 per cent. were already in a dying state when brought to the hospital, or came too late for remedial measures.

Bombay.

Physical Outline.—The Presidency of Bombay, so called after its capital, is a narrow strip of irregular outline, stretching along the western coast of India, and well supplied with havens, though few, however, with the exception of Bombay, can be approached or quitted with safety during the prevalence of the south-west monsoon. Its greatest length from south-east to north-west is about 1,100 miles, and its greatest breadth about 250 miles. It is divided into three provinces, which are sub-divided into 22 districts. The provinces are called the Northern, the Southern, and Sinde. Each province is under a commissioner. The districts are regulated by magistrate-collectors. There are also many native states in the Bombay Presidency, as Khyrpore in Sinde, the Guicowar's territory or Guzerat, forming, with several smaller states, a considerable group of native principalities between Sinde and Bombay. The South Mahratta jagheers, the Sattara jagheers, Jingera or the Hubshee (Abyssinian's) territory, Kolapore, and Sawuntwarree are native states southward of Bombay. The Portuguese still retain some of their ancient possessions within this Presidency, as Goa, with an area of 1,066 square miles; Damaun, with a good harbour and a territory of 50 square miles; and the island of Diu with its fortified town and seaport.

The Arabian Sea forms the western limits of the Presidency as far as the southern extremity of Sinde; further north it is bounded on the west by Beloochistan. At its northern end it touches the Punjab; on the east it meets Rajpootana, the Indore Agency, small parts of the Central Provinces and Berar, and Hyderabad. On the south it is confined by narrow offsets of the Madras Presidency, with Mysore between them. The fortified town and port of Aden, belonging to the Government of Bombay, is situated on the Arabian coast, near the entrance of the Red Sea, in lat. 12° 47′ north, and long. 45° 10′ east. It is on a peninsula of about 15 miles in circumference, of an irregular oval form, connected with the continent by a narrow neck of land about 1,350 yards in breadth. The peninsula consists of a large crater, formed by lofty hills, the highest of which is about 1,775 feet. The town and military cantonments are within this crater, and consequently surrounded on all sides by hills, except on the east side facing the sea. The population amounts to 20,738.

Area and Population.—The total area of this Presidency, including Sinde, covers a surface of about 143,606 square miles, containing a population of about 12,820,848. According to the census taken on the night of the 1st February 1864, the population of the chief Presidency town of Bombay was 816,562, of which over 500,000 were Hindoos; 145,880 Mussulmans; about 30,000 Christians; and about 49,000 Parsees. The surface of the capital is given as 18 square miles, or a square mile to every 42,104 of the population. There are reported to be 3·97 or nearly four families to each house, and, including the inhabited outhouses, about 30·6 persons to each house, and 18·3 to each floor. The density of population for the whole Presidency is about 89 to the square mile, which is somewhat less than that of Scotland, though the area is more than four times greater.

Climate.—The climate of Bombay and generally along the coast is sultry, the average temperature of the whole year being about 80°, and the lowest not under

70°. The greatest heat, however, is below that of many other parts of India, and seldom exceeds 100°. The quantity of rain is for the most part very great; the average fall at Bombay is stated to be about 80 inches, and in 1831 it was as much as 99·64 inches.

Products.—The staple crops of this part of India consist of rice, wheat, and other kinds of grain, sugar cane, tobacco, oil plants, indigo, and opium, but over all these cotton claims the first place, the exports of which have of late years considerably increased, more particularly since the late American war. The quantity of cotton exported from this Presidency amounted to 203,257,093 lbs. in 1858–59, and progressively increased to 415,195,087 lbs. in 1863–64, and 549,153,475 lbs. in 1865–66. Among the trees found in these territories are the teak, Bombax, Adansonea Dalbergia, Suritenia febrifuga, acacias of various kinds, especially the Catechu, the Bassia latifolia, bearing a profusion of leaves, the petals of which, when dried, resemble raisins in appearance and taste, and are as largely consumed for food as for purposes of distillation; from it a spirit is obtained, furnishing the usual intoxicating beverage of the natives. Since 1846 a conservancy department has been formed for the better protection of the forests, whence a considerable revenue has been obtained by Government. The net profit in 1867–68 amounted to 36,293*l.*

The manufactures of this Presidency were in former days of some importance, but they have since yielded to the competition of the cheaper fabrics of Great Britain, and are now restricted to such branches as are found to be indispensable in each locality. Spinning and weaving mills, chiefly managed by companies, exist in various parts, which are all worked by engines of various horse power, besides several cotton presses and ginning apparatus, also worked by mechanical appliances.

Administration.—The administration is vested in a Governor, aided by a Legislative Council; he is at the same time subject to the superintendence, direction, and control of the Government of India. Civil and criminal justice are administered in the various Courts according to the laws embodied in the regulations of the Presidency and the legislative acts of the Government of India, by functionaries appointed by the local Government, and there is in addition a High Court, established in 1862 under letters patent, the judges of which are appointed by the Crown, and the modes of procedure have been assimilated to those of the courts at Westminster. Its jurisdiction is limited to the Presidency towns, except in regard to British subjects. The Court is presided over by eight judges, including the Chief Justice, and its proceedings are regulated by the code of civil procedure enacted by the Legislature of India in regard to civil cases, without effecting any change in the administration of criminal justice, either within the limits of the Presidency town or in the interior of the country.

Judicial.—The latest returns of the Courts of Civil Jurisdiction in the regulation districts show an increase of nearly 7,000 suits over the total number filed in 1866–67, and a similar increase over the average number of suits of the last five years. The deficiency in the Courts of Canara and Sholapore, however, is ascribed to the operation of the new Stamp Act, but in Satara the increase is attributed to the action of the law of limitation suits extended to that district in 1865, which obliges holders of unregistered bonds to file their actions within the year, or to be debarred from their legal remedies. The Courts appear to have worked zealously, inasmuch as their decisions were more numerous by 54,044 than in the preceding year, and the arrear file shows a satisfactory decrease of nearly 3,000 suits, which reduced the arrears of 1867–68 to about 14,500, against 18,500 in 1866–67, and 40,500 in 1865–66. The aggregate number of practising pleaders had increased from 744 to 792, of whom three were not natives of India. 118 had received a legal education, and 80 were acquainted with the English language. The amount invested in suits decided fell from 1,688,767*l.* to 1,442,480*l.*

A scheme had been submitted to the Government of India for the revision of the judicial establishments of this Presidency. That portion of it which referred to the re-arrangement of judicial districts, to an amelioration of the pay and prospects of the subordinate judges, and the creation of two new district judgeships was approved of by the Government of India, and has since been sanctioned by Her Majesty's Government. The proposals regarding establishments were still under consideration.

During the year 1867–68, the business of the Small Cause Court at Bombay

was in excess of that in any former year. Of the 26,349 cases set down for hearing, 25,890 were disposed of, an increase of 4,180 over the number of decisions in the preceding year. The scale of fees charged to suitors in ordinary suits was reduced by about 15 per cent., and though the cost of the establishment increased by about 1387*l.*, yet the financial results showed a surplus of 7,535*l.* against 11,222*l.* in 1866–67. The amount in litigation rose from 272,881*l.* to 304,344*l.* In the district Courts of this class the increase in the number of suits instituted was but small, the enhanced stamp duty having operated in a great measure to check litigation. The financial results of these Courts, however, showed a surplus of 4,634*l.* as compared with a surplus of 3,695*l.* in 1866–67.

The principal changes connected with the administration of the judicial department in Sinde, consist in the establishment of new subordinate civil Courts, and certain modifications of the territorial jurisdiction of some of the Courts already in existence. The district of Thurr and Parkur, which was originally exempted from the provisions of Bombay Act XII., 1866, had been brought within the jurisdiction of the Sudder Court. The same cause affected the number and value of suits instituted during the past year within this province as in Bombay.

The working of the criminal Courts in the regulation districts of Bombay had been far from encouraging. For, with the exception of "Dacoity" and "Thefts or misappropriation of cattle," there appeared an increase of crime under every other head. The total number of offences was 35,827, of which 32,771 had been tried, and the number of persons tried amounted to 64,700, of whom 33,480 were convicted. The result of the system of trial by jury met with great success in the Poona district, and was reported to be very popular. Out of 66 cases tried by jury, the verdict given in 59 cases was concurred in by the judge.

In Sinde, however, the number of offences tried by the criminal Courts, and the number of offenders, showed a considerable diminution; the decrease was principally in thefts and other trifling offences. The proportion of convictions to the whole number of persons tried had been only 47 per cent. against 54 per cent. in the previous year.

Police.—The number of persons brought before the police Courts of the town of Bombay was 17,620 as compared with 18,459 during the eleven months of the previous year. Of the 148 committed to the High Court, 104 were convicted, and 44 were acquitted. Of those brought before the police magistrates, 10,238 were convicted or punished, and 7,207 discharged. There was a falling off in the proportion of convictions compared with those committed to the High Court. In the police Courts the proportion fell from 65 to 58 per cent. The Chief Magistrate when called upon to account for this, suggested that it was partly owing to want of intelligence and care on the part of the native police, and partly to complainants failing to prosecute. This officer has been directed to furnish in future information as to the way in which cases are brought before the Court, and such as might tend to throw light upon this important point. Of those brought before this Court there were nearly 300 more European offenders than in 1866–67, which was accounted for by there having been more European seamen brought before the magistrate for refusal of duty on board ships; a proposed amendment in the law regarding merchant seamen was expected to remedy this in future. A less number of persons were before the Courts for drunkenness. The value of property stolen was 9,963*l.* less than in the previous year, and the value of property recovered was 43 per cent. of that which was said to have been stolen. Nothing of any extraordinary character occurred to disturb the public tranquillity in the districts of the Southern Division of Bombay. There was a diminution in the total number of ordinary crimes committed in the year under report, as compared with the year preceding, amounting in the aggregate to 13·76 per cent. In the total number of offences of a serious nature the decrease amounted to 8·15 per cent. As regards offences of a less serious nature, the decrease for the division amounted to 14·04 per cent. This general diminution in crime was attributed to the somewhat favourable nature of the monsoon of last season, in consequence of which the poorer classes were comparatively better off than in the preceding year; but some credit was due to the greater efficiency of the police, and to the vigilant supervision exercised.

Connected with the police administration the most important measure effected was the passing of the District and Village Police Acts by the Local Legislature. These laws supply a great want, which had long been a subject of

general complaint. Proposals for re-organizing the police employed in the several districts of the southern division on the system in force in the northern division, were submitted to Government during the year under notice; of these the constabulary of the Poona and Canara districts alone were re-organized, and the new arrangements have worked very satisfactorily where they have been in operation. The liberality of Government in extending to the constabulary the benefit of a superannuation pension with increased rates of pay on their re-organization has tended to raise the position of the police. Employment in the force is more coveted, and by this means the services of really good men will be more readily secured.

A very serious *émeute* occurred among the convicts in the district gaol at Rutnagherry in January 1868. The prisoners (38 in all) who attempted to escape, after first overpowering the police guard over the gaol, were chiefly Wagheers from Dwarka and men of desperate character. This attempt was attended by a serious loss of life; two policemen and a gaol warder being killed by the prisoners, and 15 others wounded. The escaped convicts were all eventually accounted for or re-captured; 11 of them it appears were killed, and most of the remainder died subsequently from wounds received.

In the northern division of this Presidency the usual fluctuations in the various descriptions of crime occurred, but beyond this there was nothing indicative of any disturbance of the peace and tranquillity of this part of the Presidency except certain symptoms of disaffection which showed themselves in the Narookote district, subordinate to the Punch Mahals, and led to a rising of the Bheel and Naikra population under the leadership of one Roopsing Gobur of Dandiapoora, one of the Naiks who gave trouble during the mutinies.

The whole of the persons implicated in the disturbance were subsequently caught and brought to trial. Roopsing, his son Gullalio, and his spiritual adviser were all hanged, and the rest transported for various terms of penal servitude.

About the same time, and soon after the withdrawal of the troops for the Abyssinian expedition, a wild report circulated in the Ghaut districts of Tanna, bordering upon the Poona and Ahmednuggur Collectorates, to the effect that the Government were so weakened that they were unable to enforce the laws, led to gangs of men going about attacking villages and demanding money under threats. For a short time these depredations created a panic, the villagers in general offering no resistance though the men composing the gangs were not unfrequently unarmed. The police by active measures soon restored tranquillity by apprehending several of these gangs, who were tried and severely punished by the ordinary Courts.

Turning to the statistics of crime, there were 19,181 cases reported, of which 15,061 or 78 per cent. were detected or apprehended. In the year preceding there were 19,278 cases and of these 15,195 were detected, giving a similar per-centage. Of offences against the human body there were 3,853 cases, of which 3,570 or 93 per cent. were detected, against 95 per cent. in the previous year. By far the greater portion of the cases consisted of ordinary charges of "use of criminal force," "assault," "voluntarily causing hurt," &c. Of offences against property under which head is entered thefts and robberies, there were 9,581, of which 5,949 or 62 per cent. were detected, or nearly the same as in the preceding year.

The value of the property stolen as given by the owners was 51,560*l.*, and the value of the portion recovered 14,265*l.*, being about 28 per cent. on the total amount.

The re-organization of the police in all the districts of the northern division on the 1st of January 1867 was chiefly directed to giving the force better pay and reducing their number. The result shows that the force has been much improved, and that except on the occasion of the rising of Bheels in the Punch Mahals it was not necessary to call out any military force.

In regard to the railway police a marked improvement has taken place since the force was formed under orders from Government as a separate department. No serious offence or accident had occurred on either of the lines without the superintendent or one of his inspectors being telegraphed for, and arriving on the spot soon after the occurrence. Another evidence of the usefulness of this police is shown in the fact that whereas in the year 1866–67 the railway companies paid on account of goods lost 45,344*l.*, in the past year they paid only 21,175*l.*, being a decrease of 24,169*l.*

Revenue.—The season of 1867–68 was, upon the whole, a favourable one almost

throughout the Presidency, notwithstanding that the fall of rain was generally irregular. In the districts of the Southern Division, after the first burst of the monsoon, there was but little rain, except in Canara and Rutnagherry, for a considerable length of time; and in Guzerat, and portions of Candeish, there was generally no rain for some time after the opening of the season. The chief characteristic of the monsoon was that, after its commencement in June, there was a long interval of drought during the greater part of July, August and September, so much so that considerable apprehensions were entertained as to the safety of the crops. The heavy showers, however, which fell in October subsequently, dissipated all fears, and proved especially beneficial to the spring crops, which yielded an unusually abundant harvest during the year.

The total revenue for the year under the heads of Land and Sayer amounted for the whole Presidency, including Sind, to 3,601,574*l.*, showing an increase over the previous year of eleven months of 198,282*l.* The following table supplies the particulars of these figures: —

	1866-67.			1867-68.			Increase.	Decrease.
	Land Revenue.	Sayer Revenue.	Total.	Land Revenue.	Sayer Revenue, including Licence Tax.	Total.		
	£	£	£	£	£	£	£	£
Southern Division -	1,132,881	290,504	1,423,385	1,187,860	381,991	1,569,851	146,466	—
Northern Division -	1,429,123	144,691	1,573,814	1,335,235	140,270	1,475,505	—	98,309
Sind - - - -	288,891	92,514	381,405	373,876	116,168	490,044	108,639	—
Bombay - - -	7,702	16,985	24,687	7,740	58,433	66,173	41,486	—
	2,858,597	544,694	3,403,291	2,904,711	696,862	3,601,573	296,591	98,309

The increase in the year's revenue of 146,466*l.* in the Southern Division was due chiefly to the circumstance that the results shown are for twelve months, while those of the preceding year were for eleven months only. But apart from this as regards the item of land revenue, the increase is assigned to the following causes:—(1.) Increased cultivation. (2.) The extension of the survey settlement to parts of certain collectorates. (3.) The transfer of forest receipts from the head of the sayer to that of land revenue. The increase in the sayer revenue was due principally to the introduction of the licence tax and the amendment of the stamp law, the increase under these two heads alone being 84,629*l.* The falling off in the Northern Division was merely nominal, and due to the alteration in the dates of the revenue instalments in some of the collectorates, whereby a part of the revenue formerly realizable in April and May was collected in March, and was consequently credited to 1866-67, instead of to 1867-68, in which year it would otherwise have been included. The total sum collected on account of licence tax in the northern division up to 31st March 1868 amounted to 32,167*l.*; the net collections from the same source for the town and island of Bombay amounted to 40,516*l.*, giving an average of about 500*l.* for every 10,000 population. The result exceeded what might have been reasonably expected, and very small amount of ill-feeling or opposition was shown by the tax-payers. In Sind the realizations amounted to 17,616*l.* The total sum realized under this head amounted to 140,910*l.* for the whole Presidency.

Cotton. — During the year 1867, 1,224,050 bales of cotton were exported from this Presidency, against 939,679 in 1866, thus showing an increase of 284,371 bales. A sum of 24,224*l.* was realized from fees and other sources, which was 5,838*l.* more than the receipts of the preceding year. The expenditure of every description, exclusive of advances for the purchase of seed in experiments for the improvement of the staple, amounted to 22,653*l.*, leaving a balance for the year's receipts of 1,571*l.* Adding this to the surplus on the 1st January 1867, 17,360*l.*, there was a balance in hand on 1st January 1868 of 18,931*l.* The sum outstanding on account of advances was 3,193*l.*, which was in a great measure recoverable. Four additional steam presses have been licensed in Bombay, making a total of 135 steam presses in existence at the end of the year. In the districts their number had decreased from 19 to 18; but two steam presses were reported to be in course of erection. There has been an increase of 42 in the number of presses worked by manual labour. The whole of this increase occurred in the Surat and Broach districts. There was a considerable increase also in the

number of cotton gins worked by steam power. In Ahmedabad 22 additional gins have been established, and in Surat and Broach their number rose from 500 to 950, or nearly double the number of the previous season. In Khandeish 11 new gins have been started, but 40 which were at work in 1866 have been removed owing to want of funds. The total number of gins in existence amounted to 1,303 at the close of 1867.

The operations of the Cotton Frauds Act during the past year have been attended with that steady amount of success which has characterized it since its introduction. It is admitted on all hands that beneficial results have followed the measure. Though fraud and adulteration have not entirely disappeared, they have been reduced to a minimum. The cotton sent to market now is infinitely clearer and purer than it was four years ago; while as regards the improvement in quality it is only necessary to turn to Candeish, which gained the first prize for cotton at the late Akola Exhibition in Berar. This year the whole district will be sown with Hingunghat seed.

The area under cotton cultivation throughout the Presidency was 2,015,534 acres as compared with 2,011,793 acres in 1866–67, showing an increase of 3,741 acres under culture of this staple.

Finance.—The year opened on the 1st April 1867 with a balance of 2,320,199*l.*, and closed on 31st March 1868 with one of 2,396,957*l.* The actual receipts and charges for the past two years are given in the margin, from which it will be seen that the surplus at the close of 1867–68 was in excess by 824,233*l.* of that in 1866–67. In consequence of the heavy drain on the general treasury of Bombay in connexion with the Abyssinian Expedition, the drawings of the Secretary of State in this Presidency ceased in 1867.

	Actuals. 1866–67.	Actuals. 1867–68.
	£	£
Receipts -	7,589,454	8,877,194
Charges -	3,541,631	4,005,138
Surplus -	4,047,823	4,872,056

The excess of new coin paid into the Treasury, amounting to 88,856*l.* over the amount of certificates granted during the year, represented the coinage of unworked bullion in the Mint balance at the close of the year 1866–67. Owing to the sudden influx of bullion in the Mint during certain months of the past year, and its inability to keep pace with the amount of certificates issued during the same period, bullion to the extent of 1,350,000*l.* was exchanged for coin in the currency department to aid the general treasury balance. The bullion so exchanged was subsequently coined, leaving a balance there of 220,000*l.* on the 31st March last.

	1866–67.	1867–68.
	£	£
Mint certificates issued - -	1,835,940	2,592,787
New coin paid into the Treasury -	2,563,441	2,681,643

The circulation of paper currency at the beginning of the year was 3,990,353*l.*, and at its close 4,190,041*l.*, giving an increase of 199,688*l.*, or about 5·004 per cent. The circulation stood at a maximum on the 21st and 22nd December last, when it reached the unprecedented amount of 5,672,984*l.*, the minimum circulation being 3,671,141*l.* on the 30th April 1867. The daily average for the year was 4,753,447*l.* in value, represented by 425,091 pieces in circulation. The number of notes cancelled during the year was 414,835, value 4,462,304*l.*, and showed a large increase over the number cancelled in the previous year. This was owing to the withdrawal from circulation of all notes of the old pattern that were tendered at the currency office on the issue of the new pattern notes.

A few forged notes of the old pattern, however, were tendered to the exchange department and detected, but the parties were at once handed over to the police. No attempts had been made to forge the new pattern notes, nor to tamper with them.

Public Works.—The expenditure for 1867–68 under all heads has been 96,793*l.* less than the allotment for the year, the total grants having been 1,462,981*l.*, and the expenditure 1,366,188*l.* This result was principally due to the want of approved plans and estimates for barracks. The savings during the year were chiefly under the heads of military, agricultural, and public improvements, the last having been partly caused by the Abyssinian Expedition, which, by its demands on the workshops and flotilla of the Moody Bay reclamation, had prevented the execution of as much work as might otherwise have been done. As a set-off, however, to the total saving of 182,352*l.* on original works, there has been an excess of 116,201*l.*

on civil buildings, due chiefly to the purchase of certain property involving a total cost of 102,695*l.*, thus leaving an excess of 13,506*l.* due to ordinary civil buildings. This was unavoidable, the grant for civil buildings having been inadequate to the wants of this Presidency, but as a matter of account it was more than covered by savings on communications, repairs, establishment, and tools and plant. The cost of repairs had not come up to the allotment, there having been a saving of 24,646*l.*, of which 11,617*l.* was for military, and 6,449*l.* for agricultural purposes. The expenditure on establishment showed a saving of 9,030*l.*, due partly to the absence of officers on field service, whose places had not been filled up. The local fund accounts showed a saving of 83,940*l.* on a grant of less than 240,000*l.* The total outlay, imperial and local, inclusive of tools and plants, but exclusive of establishment, was 1,307,717*l.*, the cost of the establishment was 212,726*l.*, or about 16·26 per cent. on the total outlay.

Considerable difficulty had been experienced in properly supervising the amount of work during the past year, owing to the demands of the Abyssinian Expedition, which required the services of eight executive engineers, eight assistant engineers, and 14 subordinates for service in the field, and made heavy calls on the resources of the Department in India, especially in Bombay and Kurrachee; the opportune return of four officers, however, from Europe enabled this Department to bear this sudden pressure.

Military.—The principal military event of the year was the Expedition to Abyssinia. In August 1867 orders were received from England for the organization of the expedition. His Excellency Lieutenant-General Sir Robert Napier (now Lord Napier of Magdala), the Commander-in-Chief of the Bombay army, was appointed to the command; and the arrangements were entrusted mainly to the Bombay Government. The force detailed for the purpose consisted of 12,947 men of all ranks. The naval brigade was furnished from the crews of the ships of the Royal Navy. Of the other troops, half the native cavalry, a regiment of pioneers, and one regiment of native infantry were furnished from the army in the Bengal Presidency. Three companies of sappers and miners, numbering 396 men, were furnished from the Madras army. The remainder of the troops were from the Bombay army, excepting the company of Royal Engineers, which came from England. Beside the troops above stated, the regimental followers, the followers of the commissariat and the transport department, the army works corps, cooly corps, and clerks and servants numbered above 25,000 men. No obstacle was experienced in procuring sea transport notwithstanding the enormous demand, amounting to 325,465 tons, nor in procuring the necessary supplies. The only difficulty was the provision of the means of land transport. Her Majesty's Government despatched agents to purchase mules in different parts of Europe, in Syria and Egypt, and the Bombay Government also sent officers for the same purpose to Persia and Mesopotamia. 200 mules and ponies were sent from Calcutta, and 2,600 from the Punjab. Such as were available in the Bombay Presidency were sent from Bombay. Camels were sent from Aden, and others were subsequently purchased by officers detached from Abyssinia for the purpose to Berbera, Suakin, and Egypt. The result was that from October 1867 to April following there were collected in Abyssinia (including those purchased in that country)—44 elephants, 10,798 camels, 17,551 mules, pack horses, and ponies, 8,542 pack and draft bullocks, and 1,839 donkies, making a total of 38,774 animals for transport purposes. The mortality amongst these animals was great, about 9,880 having died.

The first transports sailed from Bombay on 16th September 1867, and the last on the 7th April 1868. The re-embarkation began about the 10th May following, and ended on the 18th June. Several thousands of baggage animals were left at Zoulla under charge of the French consul.

The Government of India has partially withdrawn the prohibition imposed in 1858 against the enlistment of Hindustanees in the ranks of the native army of this Presidency, and recruits may now be drawn to the extent of 150 men for each corps.

The strength of the Bombay army of all ranks at the close of the year 1867–68 consisted of 14,060 Europeans, and 25,039 Natives, making a total of 39,099, of which 11,249 were employed in Abyssinia.

Marine.—Within the year the Government had under further consideration the question of providing permanently a proper naval force for the security of British

interests in the Persian Gulf or in other quarters formerly dependent on Bombay in such matters. In view to secure this object a proposal had been submitted to the Government of India to constitute a special Indian squadron on the basis of the existing Bombay marine.

Telegraphs.—During the past year the submarine cable of the Indo-European Telegraph between Kurrachee and Faô worked most satisfactorily and remained in as good electrical condition as when laid in 1864. The only faults were in places where it accidentally became exposed to the sun between low and high water mark, in shallow water where the outer serving had been chafed off from the action of the sea, or where buried in mud and earth between the beach and the offices. The deep-sea cable in the Persian Gulf between Mussendom and Faô has never yet failed; the shore ends, however, required examination and repair. Two interruptions occurred to submarine communication between Kurrachee and Guadur, but as the traffic was conducted through the alternative land line, no inconvenience to the public resulted from them. The only break that took place on the Guadur-Mussendom section declared itself about 13 miles west of Guadur, and very serious inconvenience resulted from the facts that the steamer "Amberwitch" was in dock undergoing extensive repairs, and there was no alternative line by which messages could be forwarded. Steamers were, however, at once engaged to carry messages between the two stations. The interruption still existed at the end of the official year.

From the landing-place at Munora to the office in Kurrachee the cable has been laid through the swamps and across the creeks bordering the harbour. When repairing this cable it was found that the gutta-percha had been perforated in many places by the "teredo," a small testaceous mollusk abounding in Kurrachee harbour. Wherever the outer serving had become worn, and there was the slightest opening in the iron guard, one of these boring insects had lodged itself. Fortunately they have never yet been found in the cable outside the harbour, or they would become a most serious obstacle to permanent submarine communication. The land line between Kurrachee and Guadur had been greatly improved by the substitution of new insulators, and worked very well during the whole year.

The number of messages transmitted was 30,684, of which 29,688 were of a commercial or private nature, and 996 were Government despatches. The average length of each message was 20 words. The net revenue of the line between Kurrachee and Fao was 98,887*l.*, or 5,190*l.* more than in the corresponding 12 months of 1866–67, and 8,887*l.* in excess of the estimate. During the same period 2,450 messages were received from, and 2,050 were despatched to, places on the continent of Europe; 215 messages were received from, and 168 despatched to, places in America by the Atlantic cable.

The increase of local traffic formed a noticeable feature, the revenue from which last year was 9,063*l.* as compared with 6,161*l.* during the previous twelve months, showing an increase of nearly 50 per cent. in the receipts under this head. The average time occupied in the transmission of messages between the United Kingdom and Kurrachee was 4 days 17 hours 55 minutes by the Turkish route, and 6 days 17 hours 55 minutes by the Russian route, against 6 days 2 hours and 47 minutes, and 8 days 4 hours 50 minutes respectively in the previous year.

Education.—The actual expenditure on public instruction in the Bombay Presidency during the past year, as contrasted with that of 1866–67, is shown in the margin, from which it will be seen that there was an increase of 27,778*l.* in the aggregate. It should be stated at the same time that the expenditure given for 1866–67 was only for a period of 11 months, but in order to facilitate a just comparison the estimated outlay in education for 12 months of the same year should be taken at 151,959*l.*; hence the real increase will therefore be only 15,114*l.* The large increase apparent on expenditure from local sources was due mainly to the extension of the local cess to parts of the Poona and Rutnagherry districts, to a larger allotment of the local cess in Sinde, and to the extended operations of cess committees throughout the Presidency.

	1866–67.	1867–68.
From	£	£
Imperial Funds -	79,132	86,783
Local Funds - -	60,163	80,290
	139,295	167,073

Not taking into consideration the colleges the number of schools had increased from 1,748 to 2,089 in 1867–68, and the number of scholars attending thereat

from 117,144 to 137,587. The results of the university examinations showed that 539 candidates appeared against 440 in the previous year, out of which 163 matriculated as compared with 93 in 1866–67, and out of 131 candidates for the various degrees 57 passed.

Medical.—The total number of persons treated in hospitals and dispensaries of this Presidency during 1867–68 was 355,941, or 50,771 more than in the previous year. The proportion of deaths to treated in the civil and police hospitals was as follows:—In the European General Hospital, 5·09 per cent.; Jamsetjee Jeejeebhoy Hospital, 18·90 per cent.; Civil hospitals, 3·57 per cent.; and in Police hospitals, 1·13 per cent.

Hospitals -	43,048
Dispensaries -	312,893
Total -	355,941

The cases treated in gaol hospitals amounted to 9,663 against 11,970 in 1866–67, and the total deaths to 233 against 429. The rate of treated to strength had diminished from 161·52 to 130·25 per cent., the deaths to strength from 5·79 to 3·14 per cent., and the deaths to treated 3·59 to 2·41 per cent.

Of persons vaccinated during the year 0·53 per cent. were Christians, 73·75 per cent. were Hindoos, 20·25 per cent. were Mussulmans, 0·41 per cent. were Parsees, and 5·06 per cent. were other castes. The number of operations amounted to 401,186, being an increase of 28,792 over the preceding official year. The number vaccinated under one year was 167,310, and above that age, 233,876. The per-centage of successful cases was 93·54.

Surveys.—The settlement operations extended over 3,574,986 acres during the past year, out of which 2,496,556 acres had been classified. In addition to this work settlement had been introduced into 721 villages altogether; the jumma fixed amounted to 83,482*l.*, being an increase of 13,640*l.* over the past collections. Two parties also laid down the boundary line of the Akulkote State, involving the settlement of numerous disputes. The northern frontier of the Province, as determined by the Commissioners, comprising an area of 1,103 square miles, was surveyed and mapped. An area of 2,945 acres had also been completed in the town of Bombay. This was a most arduous and troublesome duty, as the operations were conducted through streets very narrow and tortuous, and the traffic on them so incessant as to cause continual hindrance to the progress of the work.

Forests.—A decided improvement in the forest revenue of the Bombay Presidency has to be noted, as the receipts were not only considerably greater than in 1866–67, but the expenditure had been reduced in an equally satisfactory degree, the per-centage of expenditure compared with receipts being 61 instead of 85 and 88 per cent., as in the two preceding years. The net profit of the forests in Sind amounted to 9,881*l.* against 9,898*l.* during the 11 months of the previous year. The Oriental Inland Steam Navigation Company having closed operations during a portion of the past year there was a sensible diminution in the consumption of fuel for their steamers.

	1866–67.	1867–68.
	£	£
Receipts -	56,895	68,200
Expenditure	50,070	41,844

Hyderabad Assigned Districts (Berar).

This territory came under the management of British Government according to treaty on the 21st May 1853, and comprised the districts of North and South Berar, Nuldroog and the Raichoor Doab. At that time the area was estimated at about 24,566 square miles, with a population of 2,444,470, and the net revenue for 1853–54 amounted to 353,398*l.*

In the month of December 1860 the treaty of 1853 underwent certain modifications with a view to simplify arrangements between the British Government and that of the Nizam. The districts of Dharaseo, the Raichoor Doab, and the Shorapore territory were restored to His Highness, while the Crown lands and other territory in East and West Berar and the districts on the Pain Gunga river were received by the British Government. The debt due by the Nizam was cancelled, and the net gain to His Highness's annual revenue was about 131,899*l.* While these concessions and restoration of territory gave satisfaction to the Nizam, no inconsiderable advantage was derived by the British Government under the arrangements.

The inconvenient strip of land on the left bank of the Godavery and its confluents, so necessary for securing an uninterrupted control of the hydraulic works on the Godavery, has been ceded to the British in perpetuity. The navigation of this river and of the Pranhita and Wurda rivers was at once declared free, and all transit and customs' duties were abolished.

At the present date this province is partitioned off into two Commissionerships of East and West Berar, with two districts to each. It lies almost in the very centre of India, and is bounded on the north and east by the Central Provinces, on the south by the Nizam's dominions, and on the west by the district of Candeish in the Bombay Presidency, and by the Indore Agency. The first census ever taken in this province was carried out in November 1867 without any difficulty. The result shows that the total area under British management consisted of 17,334 square miles, containing a population of 2,231,565, living in 495,760 houses, distributed among 5,694 towns and villages, thus giving an average of 128 to the square mile for the whole province, and of four persons to each house. The average density of the population, though below that of the North-western Provinces, was much higher than in the Central Provinces. The total area under cultivation was 4,851,551 acres, the proportion therefore t. cultivated area will be a little more than two acres to one of the population, and would indicate a paucity as compared with other parts of India. The distribution of the population showed that there were 5,424 villages with less than 1,000 souls, 240 places where the number ranged from 1,000 to 5,000, 23 places with a population varying from 5,000 to 10,000 souls, and seven towns where the souls numbered over 10,000. The largest town is Ellichpore, with 27,782 souls; Oomrawuttee had 23,410; then followed Akolah and Akote, each with a population over 14,000. The proportion between the sexes is compared in the statement given in the margin, and shows a very near approximation with that of the North-west and Central Provinces.

—	Proportion of Females to Males.		
	All Ages.	Adults.	Infants.
North-west Provinces	46·38	47·50	44·
Central Provinces -	48·8	50·	47·
Berar - -	48·3	48·8	46·9

The following statement classifies the adult male population according to their employment.

Agriculture - - -	448,273
Professions - - -	10,137
Domestic Service - -	19,247
Commerce - - -	55,652
Arts and Mechanics - -	38,658
Textile Manufacture - -	22,246
Trades - - - -	10,821
Labour other than Agricultural -	76,923
Private Property - - -	805
Paupers - - - -	48,380
Total - - -	731,142

The proportion of convictions during 1867 for offences against property in the total adult population was for every 1,000 males 1·61, and for every 1,000 females ·12; while that of convictions for offences against the person was ·43 for every 1,000 adult males and ·02 for females. Thus it may be inferred that the criminal classes did not constitute any large section of the people.

A further classification according to caste showed that only 6·94 per cent. of the whole population were Mussulmans. The Brahmins numbered 49,843 souls; many Mahrattas claimed the honour of a Rajpoot descent. The bulk, however, of the people were Sudras, among whom the industrial classes may be included. But the paucity of the scavenger caste, amounting only to 503, was looked upon as a sanitary evil, and efforts have been made to induce immigration of this class from neighbouring provinces, but without success.

Political.—The only feature of importance under this head during the past year was in regard to the decision arrived at affecting the status of the Gond Rajahs in the Meilghaut, which is a well-wooded branch of the Sautpoora mountains constituting the northern boundary of Berar. It is a tract of about 1,500 square miles in extent, yielding a land revenue (apart from forests) of 1,838*l.* per annum, and containing a population numbering 40,756 souls, consisting entirely of Gonds, who gave their allegiance to five chiefs of so-called Rajpoot origin resident among them. These chiefs appear to have obtained recognition from the Nizam's Government on condition of maintaining order in the passes of the hills; but in troublous times they eked out a precarious revenue by the levy of black mail upon the valley of Berar, traces of which were still found to survive in the payment of irregular dues and in the levy of transit duties. Their position among the Gonds was further substantiated by the receipt of presents (nuzzeranas) from head village

officers, by the possession of considerable rent-free holdings, and by the levy of an import duty upon timber. The principles upon which the Government of India authorized the local authorities to settle their claims were briefly these:—All transit duties and other unrecognized dues were to be abolished, with compensation in land or money; their possessions were to be treated as ordinary Inam, or rent-free claims, which were to be upheld or resumed according to title; that which the chiefs now possessed in the Meilghaut would be continued by them, and their position amongst their own tribe recognized in so far that a monthly stipend was to be granted on condition of their keeping up an effective police, and at the same time maintaining order and security of property throughout the range. On the other hand, their claim to anything like sovereignty was entirely to be set aside. The amount of compensation to be awarded to the Gond Rajahs in this tract was still under consideration of the Forests Department at the close of the year.

Military. — The only troops quartered in these districts belong to the Hyderabad contingent, and consisted, during the first year, of a wing of cavalry, one light field horse battery, and one native regiment of infantry. They rendered most effective assistance at the Akolah Exhibition, and favourable notice was recorded as to their conduct and the assistance which they rendered in carrying out the directions for maintenance of order and sanitary precautions during the occasion of the large fair held at Dewulgaon in the Maiker district.

Judicial.—The total number of suits filed in the 32 courts of this territory in 1867 as compared with the previous year was 12,241 and 10,242 respectively, thus showing an increase of 1,999, and which was noticed as having occurred in the Akolah district of West Berar, while in every other district of the two sub-divisions of this tract there has been a decrease, partly attributable to the introduction of the new Stamp Act, and partly to the difficulties thrown in the way of the introduction of the small cause court system. The value of the property litigated during the past year amounted to 183,863*l.* against 190,646*l.* in 1866. The average value therefore of each suit was 15*l.*, as compared with 18*l.* in the previous year. The cases disposed of amounted to 11,293, or about 92 per cent. of the number filed. A small cause court has been opened in the Akolah district of the western division of this territory with a view of lightening the burden of work which had devolved on the courts of the Assistant Commissioners of that district.

The per-centage of costs to the value of litigation was given at 1*l.* in 1867, against 1*l.* 14*s.* in 1866. The average duration of cases continued high when compared with that in other parts of India, but when the amount of work that fell upon the courts, where it was largest, is taken into account with the wide area of their jurisdictions, greater expedition would scarcely have been compatible with sufficient completeness of investigation. Where there has not been excess in business there was a corresponding decrease in duration also.

The organization of a department for the registration of deeds and other documents, under Act XX. of 1866, has been authorized and completed during the year, through the agency of which it was expected that the people would refrain from unnecessary resort to civil process, which was rather prevalent in this part.

The appellate business may thus be summarized :—Out of 682 appeals on the file, 661 had been disposed of during the year, the average duration having been 37 days.

It may be stated in a general form that the civil work of the courts of the Hyderabad Assigned Districts had increased to an extent which was hardly a satisfactory symptom in the state of ordinary commerce, but every exertion had been made to keep pace with this increase. Every testimony was borne at the same time to the quality of the work, which was pronounced to be equal in all respects to that of the adjacent or in the North-west Provinces; though the duration of cases was undoubtedly long, yet it was expected some reduction might be looked for, when the changes in the location of some of the courts has been rendered feasible by the growth of the small cause court system. A decided improvement was also recorded both in the capacity and the willingness of the native bar to conduct their cases through the courts with honesty and clearness.

With regard to the criminal administration, the total number of non-cognizable cases had decreased from 2,104 to 2,042 in 1867, while that of cases cognizable

by the police had increased from 4,160 to 4,542 in the same period. The increase in the aggregate of offences committed in 1867 over the previous year was therefore 320, or a little more than 5 per cent. In the more heinous offences there has been a slight increase in dacoitee and robbery, but under the other heads of the same class there was no variation; as compared with the two previous years there was a considerable decrease under every head; notwithstanding the increase under the heads of robbery and dacoitee the value of property stolen was less by 160*l.*, and of that recovered the per-centage was 29·84 against 29·0 in 1866, and against 21·4 in 1865. Crime was most prevalent in the East Berar division of this territory. The ratio of crime to population appeared to have been one offence to every 480 souls of the cognizable class, and one to every 1,067 souls of those not cognizable. The per-centage of acquittals on the total number of offences was 21 per cent. in East and 30 per cent. in West Berar, the proportion of convictions to apprehenions being 72·16 and 62·13 per cent. in the respective divisions, results which varied but little as compared with the previous year.

Police.—The total strength of the police force was 2,546 of all grades, which gave a policeman to every six square miles and to every 855 of the population; comparing this with other parts of India, it may be stated that in the Punjab it was one to 736 souls in 1866; in the North-west Provinces it was one to 1,127 in 1865; in Madras, one to 1,019; in Bengal, one to 1,513; in England and Wales it was one to 902; and in Ireland one to 420 souls. The total cost of the force amounted to 45,905*l.*, or about 5*d.* on each head of the population; of this cost 5,700*l.*, or nearly 12½ per cent., was borne by the Municipal Fund. The conduct of the police was reported to have been good, and their general working was highly satisfactory. Out of 4,542 cases cognizable by them 3,233 were brought to trial, which gave a per-centage of 71·18; the ratio of convictions to arrests was 70·97; compared with the previous year the increase in the number of offences brought to trial was 2·16 per cent., and of convictions to arrests 7·97 per cent. In the non-cognizable class the increase was 1·0 per cent., and 7·8 per cent. in the number brought to trial and in those convicted respectively. Police schools had been established during the year at the head-quarters of each district. Resignations from the force still continued to be numerous, which was attributed greatly to the incessant round of duty to be performed, and partly to the fact that too many of the men were natives of Hindostan, who serve for a few years and then become desirous of returning to their houses with what they had saved.

Revenue.—The gross revenue of these assigned districts amounted to 600,343*l.* against 577,417*l.* in 1866–67; thus exhibiting increase to Government revenue of 22,926*l.*, or 3·97 per cent. The increase was most observable under the heads of Land, Customs, Stamps, Public Works, and Police, including Law and Justice; that derived from Abkarree had decreased to the extent of 28,928*l.*; the revenues from forests and salt had also fallen off in a less degree; while on the other hand, the revenues derivable from local funds and village expenses combined had increased by 36,794*l.* This additional land revenue was obtained from extended cultivation, from the introduction of the new survey assessment, and from new leases issued under the Waste Land rules. The total area under cultivation had increased from 4,432,837 acres in 1866–67 to 4,851,551 in the year under review; the proportion to waste land was about 44·4 per cent., and the average revenue demand was something under 2*s.* an acre.

The crops are reported as having been exceptionally good in West Berar, but as having been slightly injured by unseasonable rains in the Eastern division. The average rain-fall for the whole province had increased considerably in 1867–68, being nearly 38 inches, as compared with 17 inches during the previous year. The distribution of the crops has been calculated at 27 per cent. as occupied by cotton, 71 per cent. by cereals and other dry crops, and 2 per cent. under garden cultivation.

This territory was brought within the Salt circle of the Central Provinces during the past year; the total levy of the tax imposed, inclusive of what was taken at the manufacturing pans in Bombay, was not to exceed 6*s.* per maund (about 82 lbs). The total length of the line of customs cordon thus established is 334 miles. It was hoped that the only cost involved in the creation of this line would have been the removal of the cordon at present drawn along the border of the Central Pro-

vinces to the parallel borders of Berar, a step which will become necessary in a short time. Some idea of this intention of the Government having reached traders in Bombay, the imports of salt into Berar rose from 78,474 lbs. in July 1867, to 2,736,786 lbs. in August, and 4,976,826 lbs. in September. It was obvious, therefore, that the removal of the old line would have enabled the whole of these and other accumulations being passed into the Central Provinces without paying any duty, and would have occasioned a loss to the revenues. The temporary maintenance of the double line appeared to be the only sufficient mode of meeting this difficulty. Supplementary internal cordons were also established in the interests of Berar, with a view of defeating the evasion of duty by these accumulations. The manufacture of indigenous salt produced from saline wells has ceased; it had begun to disappear from the market before the leases for its manufacture were withdrawn.

Permission has been obtained for the export of opium grown in Berar the seaboard of Bombay, subject to the same restrictions and duty in that presidency as upon that grown in Malwa. The Berar opium bears an excellent reputation and is well able to endure the further duty of 10*l.* a chest which will be laid upon it as it leaves this territory.

The increase in the income derived from stamps amounted to 9,810*l.*, and arose entirely from the sale of judicial stamps. That of bill and receipt stamps continued comparatively small.

Education.—An educational department for these provinces was first organized in June 1867, and the results of the progress made were reported as satisfactory. The increase during the year was 52·4 per cent. in the number of schools, and 40·38 per cent. in that of pupils. Of the students in the several languages the increase was 49·5 per cent. in English, 36 per cent. in Marathi, 79·6 per cent. in elementary Sanskrit, and 65·2 per cent. in Hindustanee. A commencement had been made in the way of female schools, which may be characterized as promising, 10 schools for Hindoos and 5 for Mahommedans having been opened, with a registered attendance at the close of 1867–68 of 351 pupils. School fees increased 139 per cent. on the preceding year. The total amount thus collected was 1,231*l.*, against 515*l.* in 1866-67. One point of special importance is reported by the Director of Public Instruction, that more or less of English was being taught on an average to every sixth boy attending the schools in Berar, while it was stated at the same time that "far the most weight was attached to the vernacular languages," so that the above result had been gained without disregard of other important interests.

The total expenditure amounted to 16,322*l.* from Imperial funds, and 1,377*l.* from local funds, making an aggregate of 17,700*l.* The average cost per pupil was 1*l.* 4*s.*, a rate which it was expected would decrease with the spread of education of a lower description among the agricultural population. There were three things to be borne in mind in considering the expenditure; (1), the dearness of living which raised the price of labour in Berar; (2), the bad accommodation, and the want of comforts, added to the climate, which created an aversion to settle in the territory; and (3), the superior kind of schoolmasters deemed necessary for Berar, where the native dialect is so impure.

Public Works.—The total expenditure on account of Public Works in Berar increased from 55,288*l.* in 1866-67, to 72,634*l.* in 1867–68, the increase occurring under every head except that of roads, in respect to which the expenditure was 927*l.* less. The accommodation for the conduct of civil administration was still insufficient for this province, notwithstanding that some progress has been made in the works undertaken. The only military works in Berar were the halting places or rest houses intended for troops travelling by railway to the Central Provinces from Bombay. Numerous petty works have been taken in hand and completed by the various municipalities. The town of Oomrawuttee has been considerably improved, under a large and liberal scale of expenditure, the income of the Municipal Fund has been much added to by a further revision of the assessment, without giving rise to any complaint, and, on the whole, considerable activity has been shown towards local improvements during the past year. Act XV. of 1867 (for the regulation of Local Committees) has been declared applicable to these districts.

The want of a Government line of telegraph through Berar has been much felt; proposals have been made for the construction of a loop line which would involve

no pecuniary loss to the department, and afford at the same time an additional alternate line for the communication between Bombay and Hyderabad.

Finance.—The entire revenue receipts, exclusive of local funds, amounted to 589,084*l.* in 1867–68, against an estimated provision of 552,500*l.*; and the entire charges were 536,969*l.*, against a sanctioned budget grant of 553,355*l.* The receipts and disbursements rose from 393,841*l.* and 344,161*l.* respectively to the sums named above, from the date of the second treaty in 1860, or very nearly at the rate of 67 per cent. in the one case, and 64 per cent. during the past seven years. The charges under the head of Public Works increased from 10,203*l.* in 1861–62 to 61,162*l.*; showing that the administration of the department had been fully alive to the necessity of improving internal communications, erecting public buildings, and in every way assisting to develope the resources of the territory. The local funds of the Administration were also in a flourishing condition; the cash balance at the commencement of the past year amounted to 50,176*l.*; the receipts during the year were 151,859*l.*, thus making a total of 202,035*l.*; deducting the amount of charges 141,549*l.*, leaves a balance at the close of the year of 60,486*l.* The transactions under the head of deposits showed also a a balance of 28,323*l.* at the close of the past year, against a balance of 24,697*l.* at the end of the previous year.

The financial record of the past year has been marked with several administrative changes. Among them may be mentioned the separation of the Imperial from the Berar cash balance, a change in the system of accounts, the introduction of the money order system, and the transfer of the Residency treasury to the Branch Bank of Bengal established at Hyderabad, which has proved of great benefit to the Government, to the Bank, and to the public; the benefits of a paper currency have also been extended to Berar.

Forests.—At the close of the past year a Deputy Conservator was appointed to relieve the district civil officers who have hitherto had charge of the plantations and preserves in the valley of the Meilghaut tract of forests; he will be henceforward subject to the orders of the Resident only and independent of the Conservator of Forests in the Central Provinces. The net profit realized during the year showed an increase of 1,626*l.* over the revenue of 1866–67, notwithstanding the existence of considerable outstanding balances, amounting to not less than 2,306*l.*, of which 1,200*l.* will prove to be recoverable. The leasing system was reported to have closed altogether, and the changes which have been introduced had given the greatest satisfaction to the people.

Agriculture.—An agricultural show and exhibition of arts and manufactures was held at Akolah in West Berar on 27 January 1868. The funds at the disposal of the committee amounted to 7,750*l.*, of which Government contributed 1,200*l.* The unfavourable state of the weather at the commencement deterred many persons from visiting the exhibition who would otherwise have been present; moreover, the unavoidable absence of the Resident at the opening ceremony was much to be regretted. But notwithstanding these drawbacks there was a very fair attendance of native visitors who evinced considerable interest in the proceedings. The show of live stock was not a fair criterion of what the province could produce, owing to the heavy rains preventing many exhibitors from sending in their cattle. The department of machinery and implements created a lively interest in all classes of visitors, but the most valuable feature in the Exhibition consisted of the variety and quality of raw produce, particularly with regard to the show of cotton, which was exhibited in each phase of its manufacture, the English and native modes of manipulation being contrasted side by side. Though no immediate advantages appeared in any tangible form, yet there was no question as to the success attending the effort made to attract the attention and intelligence of the people towards their material and moral benefit.

Experiments had been continued in the different districts of Berar with various descriptions of cotton seed, and among the varieties which have been tried the Hinghunghat seed succeeded best, but only where the gravelly substratum laid close to the surface of the black soil; the seed obtained from Dharwar failed to germinate at all; in the Woon district the New Orleans seed yielded 94 lbs. per acre, the plants growing to a height of three feet; whereas plants from Berar seed attained a height of three and a half feet and yielded 100 lbs. to the acre. The number of full and half-pressed bales, of $3\frac{1}{4}$ cwts. each, exported from these districts

increased from 42,510 in 1866–67, to 187,599 in 1867–68, which was entirely attributable to the exertions of the Cotton Commissioner of this territory, to whom also every credit was due with regard to the management of the extensive cotton yards at the railway stations, and the new market erected at Khamgaon.

Hyderabad (Nizam's Dominions).

A very able report on the administration of the government of the Nizam in Hyderabad has been prepared by Sir Richard Temple in communication with Sir Salar Jung, His Highness' minister, for the information of the Government of India, in which will be found satisfactory indications of the general progress of the country, and of the great reforms that have of late been carried out under the auspices of this able minister.

Physical Outline.—The present extent of the Nizam's dominions was settled by the treaties of 1853 and 1861, but since the latter date the extreme northern districts, commonly known as Berar, have been assigned to the British Government, so far as their management is concerned, and are now officially termed the Hyderabad Assigned Districts. The sovereignty of these districts, however, remains with the Nizam. The territory of the Nizam lies between lat. 15° 10′, and 20° 40′ N.; and long. 74° 40′, and 81° 32′ E., and is bounded on the north and north-east by the Ceded Districts of Berar and the Central Provinces; on the south and south-east by the the Madras Presidency; and on the west by the presidency of Bombay. It is for the most part hilly, and possesses a broken and varied surface, traversed by a series of rivers, rising generally in the great range of hills and uplands known as the Western Ghauts of India, and all flowing in an easterly direction towards the Bay of Bengal. The country is consequently divided by this system into several great strips, each having a distinctive feature, which may be briefly described thus:— South of the Ajunta range of hills, flows the Paingunga river, an affluent of the Godavery. Its course runs through a hilly and wild country, on the whole the poorest part of the Nizam's dominions, without any place of importance, except Hingole, one of the stations of the Hyderabad contingent. Between the aforesaid river and the Godavery itself, there exists a noble tract of country, which, with its high cultivation, waving harvests, and general richness, may be looked upon as the garden of the Deccan, and contains many important towns. Further south is another affluent, the Manjera, on the banks of a tract often rugged and not very rich, though some parts of the valley are fruitful. Here are several places of martial tradition and strategic importance. Southwards of this last-named river there is none till the Beema is reached, which is an affluent of the Kistnah, then the Kistnah itself. This large district, included between the Manjera and the Kistnah, forms the most important part of the Deccan. Its area contains marked varieties of soil and climate and is studded with undulations; the eastern portion is covered with tanks and artificial lakes, among which may be mentioned the celebrated Pakhal lake, which is said to be the largest sheet of water in all India, though inferior to what it formerly was. To the westward, between the Beema and the Kistnah, there is a large tongue of land, at one time forming the Hindoo state of Shorapore under a feudal sovereignty of the Nizam, but now brought under the administration of His Highness since the rebellion of the prince in 1857. On the extreme south, between the Kistnah and its tributary the Toombudra lies the Raichoor Doab, which is in parts fertile.

The country thus subdivided by its river system, has also certain general demarcations pending on other considerations. Its geology possesses two marked features, first, the basaltic and trappean formations, and, second, the granitic formations. In general terms it may be stated that the blackish trap and the dark heavy soil prevail in the northern and western parts of the country, while the reddish granite and laterite and the lighter soil prevail in the eastern. In the former is raised cotton and wheat, which are less dependent on irrigation; and in the latter the autumn and spring harvests of rice are chiefly raised, being entirely dependent on irrigation from tanks and streams which abound. In the first or north-western division the agriculture resembles that of the Bombay Presidency, while that of the Madras Presidency is represented in the second or eastern division.

Climate.—The climate may be considered in general good, as there are no arid bare deserts, and the hot winds are not so severely felt.

Languages.—Three languages are spoken, Mahratta, Canarese, and Teloogoo or Telingee; the two first are principally confined to the trap country, while the third is to be met with in the granite district.

Products, Trade, &c.—The spontaneous products are not remarkable. Coal and iron are said to exist, and the forests, though worth preserving, are not of any great importance. But little either can be said of the manufactures, with the exception of the ornamental metal ware of Beder, the embroideries of Aurungabad and Koolburga, and the cloths of Hyderabad, Nandair, and Pyton, which hold a prominent place among the textile fabrics of India. Trade, judging from the customs revenue, appears to be considerable, the aggregate value being something under 10,000,000*l.* sterling per annum. The principal exports consist of cotton, oilseeds, country cloths and fabrics, and metal ware; the imports are salt, European piece goods, and hardware. The country trade is carried on partly by carts and partly by hack bullocks. The banking business of the whole country is chiefly conducted at Hyderabad itself, and is very large.

Area and Population.—The total area of these dominions covers 78,003 square miles, with an estimated population of about ten millions, giving a density of about 128 to the square mile. The real strength of the agricultural population consists of the wide-spread Koombee tribe and its various branches. The educated class of the Hindoos are Brahmins, who principally fill situations requiring more mental than physical labour. There are many Rajpoots, some of whom represent ancient families, and still possess a feudal or other superior position; and also Sikhs, whose numbers have increased since the Nizam's minister has for nearly forty years belonged to their persuasion. The lower orders, Ramoosees, Dhers, &c., are looked upon by Hindoos as of no caste, but often exhibit greater nerve and courage than their superiors, and are by no means a contemptible community. The banking and trading classes are principally composed of the Marwaree tribe, who came from Marwar in Rajpootana. Of the Mahomedans there are the real Deccanese, the Moghuls, the Pathans, the Syuds, who have been connected with this part of India for ages. The Moghul must be considered the governing race of modern days. There are also to be mentioned the Arabs, Rohillas, Hubshees, Sindhees, and Parsees, whose advent to this territory was within the last half century. The aboriginal tribes who exist in the wilder parts to the north-east resemble those of the Central Provinces.

Administration.—His Highness exercises the administrative and executive command over a particular portion of the army, which command is deputed to chiefs selected from time to time under his immediate supervision, and responsible to no one but himself; this force is paid from the revenues, amounting annually to about 150,000*l.*, derived from what is entitled the Surf-i-Khas districts, which are managed by His Highness, through various chiefs accountable only to himself. The jagheerdars, composed entirely of relations of His Highness, whose incomes are derived from landed estates or from cash payment, the funds for which are supplied from the general treasury of the State, also assist in the administration of the country. They are responsible to the sovereign alone, and are above and beyond all other jurisdiction, and receive their instructions through the channel of the minister. The jagheers consist chiefly of choice villages situated round about the capital of Hyderabad, forming a cordon about 20 miles broad, having a separate jurisdiction, and usually termed the "jagheerat." The hereditary command of that part of the army called the "Paegah," or body guard of the sovereign, is delegated to the family of Shums-ool-oomrah, or the Ameer Kubeer, who hold as jagheer, for the payment of this force, districts worth about 130,000*l.* annually. These districts are managed by agents or deputies, subordinate only to the sovereign. The minister or Dewan is appointed by the Nizam himself, and has the management of all affairs of the state but those already named. He may be a Hindoo or a Mohamedan. Formerly his remuneration was derived from a percentage or commission on those revenues of the state which were under his control, but now a regular salary has been substituted. A deputy or Peshkar is also appointed by the Nizam, and subordinate to the minister in the discharge of his

duties. There is no council, nor what is known in other native states as a durbar. The minister is the recognized channel of communication between the British representative and the Nizam. In addition to what has been already stated, there are also certain tributary Rajahs, who administer their own territories almost without control, paying a fixed annual sum to the Nizam's government, amounting to about 50,000*l.* in the aggregate.

Originally the Nizam's dominions were divided into six grand divisions, named "Soobahs," each of which was supposed to be under the authority of a Soobahdar; but in more recent times the appointment of Soobahdar fell almost entirely into abeyance. Each talooka or sub-division was under the authority of a civil official styled talookdar, under the direct control of the Dewan or minister, and he resembled, therefore, the district officer in other parts of India. By the original constitution of his office he received a regular salary, and resided on the scene of his duties. But in later times he was remunerated by a commission on the revenues collected, or otherwise he was under a sort of engagement to pay a certain sum annually to government, being allowed *carte blanche* in respect to everything else affecting the district, so long as no violent or pertinacious complaints penetrated to the capital or reached the minister, and he was permitted to reside at the capital or elsewhere, and to delegate his district functions on the spot to a deputy or Naib. In times of financial difficulty to the State he was required to pay a present to the minister or the government on presentation to his appointment, and occasionally he was even called upon to pay into the treasury a year's revenue in advance. The salaries of the Naibs or deputies were seldom adequate to the importance of their functions. Their real authority was little, as they had to refer even trifling questions to their masters, in the city of Hyderabad, or elsewhere. But before the people of their jurisdiction they were the only referees on the spot and the only representatives of the civil government.

About the year 1820 the despatches of the resident, Sir C. T. Metcalfe, teemed with details of the evils which prevailed. These evils he sought to remedy, by stationing European officers in different parts of the country to watch over the native administration, to receive complaints, and to afford redress; this limited degree of interference ceased about the year 1830, and yielded to the appointment of native supervisors called Ameens, who failed in their duty, and were abolished about the year 1840. About the year 1855 and later, attempts at reform were made by resuming some of the talookas, that is, by taking them out of the hands of military chiefs and bankers, and bringing them under the direct management of the government; a process necessarily gradual, which could only take effect as some at least of the demands and claims of these men were satisfied. Progress, however, was made, and at length nearly all the talookas became "resumed," although the resumption of some of them has only been carried out quite recently. In the year 1865, the talookas of the country generally were distributed among fourteen districts or zillahs, each zillah having on an average a revenue of from 80 to 130 thousand pounds annually. The zillah or district officials are divided into four classes, their salaries ranging from 96*l.* to 1,200*l.* annually, according to class.

From this general zillah scheme were excepted, *first*, the Surf-i-khas districts under the direct control of the Nizam; *second*, the Paegah jagheers under the management of the Shums-ool-Oomrah family; *third*, the cluster of jagheers mostly belonging to members of the Nizam's family and encircling the city of Hyderabad. When so many zillahs were constituted with talookdars immediately under the control of the central government, and when a regular supervision was established, it was impossible for the minister unaided to dispose of the business referred to him. Therefore an administrative board, styled "mujlis," was appointed at Hyderabad in the year 1864. This at first consisted of five members, with a secretary, and to it was intrusted the control of all matters relating to revenue and to police, in direct correspondence with the minister. The members of the mujlis have sometimes been old servants of the state, but were more frequently men selected from the British service. Most of them were native gentlemen of ability, experience, and character. The salary of a member ranged from 600*l.* to 720*l.* per annum. For several years past this mujlis has done much business and rendered valuable service. The occasional deputation of its members on circuit in the interior led to the removal of corrupt and inefficient officers. Still its proceedings often

lacked vigour and decision, its organization was unwieldy, and its distance from the districts of the interior and from the scene of operations affected the quality of the supervision. The Nizam's government therefore determined to reduce the mujlis to two members and a secretary, and to create a new office of Suddur Talookdar. Each Suddur Talookdar was to have authority over the talookdars of a circle of districts, and to be much in the position of a divisional commissioner in the non-regulation British districts. This arrangement has been carried out, and the new circles or Suddur Talookdarships are five in number. The Suddur Talookdars have been selected with great care partly from among the members of the mujlis, and partly from the other departments.

Military.—The Nizam's army has always been a mixed force in the fullest sense. It was not till the Pindarree war in 1817 that any improved organization was displayed. Sir H. Russell, then resident at Hyderabad, organized a section of the Nizam's troops, which was entitled the Russell Brigade. This became the nucleus out of which eventually grew the Nizam's contingent, constituted and officered in the same manner as the British Indian troops, and which for many years proved the main source of military strength to His Highness' government. Subsequently this force was reconstituted and called the Hyderabad contingent. Besides this there was also a military force consisting of the Arabs of the Deccan, who at one time became so formidable as to possess complete mastery over the Nizam. The Sikh troops also rose to a position of some consequence, and instead of acting as a counterpoise to the Arabs, they only served to aggravate the troubles of the State. Then there were the Rohillas, principally consisting of Northern Mahomedan bravoes and adventurers, who, though abounding in personal valour and prowess, never deserved the name of soldiers. Added to the above there were the "Line-wallas," the term being a reminiscence of the old days when European troops were first organized under the Nizam.

In former times a large portion of the Nizam's troops never received their pay in cash direct from the treasury. They were raised, paid, mustered, equipped, and accounted for by the military chiefs, who seldom received sums in cash for the pay and other charges of their men, but either obtained assignments on the revenues of particular districts, which they received through the fiscal authorities, or else they obtained full power to manage the districts and to administer the revenues themselves. Again, with those troops for whose charges cash was disbursed from the treasury, the pay was not actually made over to the men individually. The aggregate sum was disbursed to the chief or to the commander, and he settled with the men in his own way. The abuses to which this arrangement was liable were endless, and completely destroyed anything like military organization. Moreover, there was never any central military authority to insist on the troops being really and properly maintained, or even on their being fairly mustered. The musters of sections of the troops were held separately and independently, and frequently the same soldier would appear at different musters. Under such a system it was always difficult for the Nizam's government to ascertain with any accuracy the extent of its military charges. The present strength of the Nizam's army is given at about 43,000 men, of which 6,500 were cavalry, and the total annual cost about 790,000*l.*

Finance.—Financial difficulties prevailed during the early part of the past century, and the Nizam's government experienced great troubles, which were much aggravated by the Mahratta and Pindarree wars, culminated about the year 1820, and remained at an extreme pitch till 1853, when the Assigned Districts were conceded to the British under treaty. Various causes have been assigned for this embarrassment, the principal one being defective administration on the part of the minister for the time being, on whom devolved the custody of the finances of the country. No accounts were apparently kept by which any check could be exercised, the revenues of the districts were hypothecated, loans were effected at enormous rates of interest with native bankers, and besides resorting to the money market, government borrowed from their own servants, which led directly to increased expenditure. The embarrassments of the government, therefore, naturally led to a loss of state credit, and no steps were taken towards relieving its financial position. The immediate effect of all this was the inability of the government to pay the Nizam's contingent regularly, or to repay the advances made by the British Government on this account. Hence the assignment to the latter of the Berar districts, under the treaties of 1853 and 1861

for the payment of this force, which was reconstituted under the title of the Hyderabad Contingent. This event relieved the finances of the most imperative of all demands, and thus enabled the minister to grapple with the remaining difficulties, and to fulfil the urgent requirements of the time. The vigorous efforts since made towards reform have now placed the financial credit of the Nizam's government on a satisfactory footing; it enjoys the confidence of the monied class, and it can now raise money at very moderate rates of interest, instead of the usurious charges of former days.

The present state of the finances, quoted for 1865–66 in the report of Sir Richard Temple, may thus be stated, the grand total of receipts amounted to 1,787,268*l.*, and the aggregate expenditure to 1,715,609*l.*, leaving a surplus balance of 71,659*l.*, which would be considerably increased hereafter, so as to meet the outlays most urgently needed for public improvements, yet reserving an adequate amount annually for the final extinction of the debt.

For many years this part of India has been troubled with a variety of debased coinage. Besides the mint at Hyderabad there were several district mints, each giving its name to its coinage. Though penalties were prescribed for debasing the coinage, debasement became constant and open, and various other abuses sprung up causing considerable loss and inconvenience to the State, and to all interests connected with it. In 1856–57, the Nizam's government resolved on a reform of the coinage, which was effected by the abolition of all the mints in the districts, and by the issue of a new coinage differing from that of the Hyderabad mint. At one time it was proposed to assimilate the coinage to the British standard, but the change was too great to admit of its introduction at once. The new rupee was, therefore, coined at the old standard, the intrinsic value of which was 15 per cent. less than that of the British. The reform proved very beneficial, particularly during the troubles of 1857 and 1858, as it facilitated the supply of cash at Hyderabad required for public purposes.

Revenue. — In considering the land revenue arrangements of the Nizam's dominions, the distinction of race and language has always existed, and still exists, in the revenue records, which are divided into two sections, one pertaining to the Teloogoo and Canarese country, the other to the Mahratta country, though in both sections the language used in papers submitted to the government is Persian. By the original constitution of these records all papers relating to landed tenures and to land revenue of their respective subdivisions of the country should pass through or be deposited in them. But in consequence of an undue influence and power exercised by the keepers of these revenue records which did not belong to them, a fresh arrangement was necessary and these records have been restricted to their legitimate functions.

As regards the constitution of the agricultural community and the tenures of land, there is a generic resemblance pervading the whole of the Nizam's dominions. But there have been, and still are, some differences between the Telingana and Mahratwaree country. In Telingana the fundamental tenure of land is much the same as that which prevails in the neighbouring districts of the Madras Presidency, and which is so well known as the ryotwaree tenure. While that of the Mahratwaree division of the country is the same as in Telingana, with the exception that there are few if any zemindars; and, consequently, none of the leasehold arrangements as in Telingana.

In the best days of the Nizamate the land revenue arrangements, though doubtless not free from the faults of the time, were conducted with tolerable efficiency. Subsequently the administration fell off, so much so that between 1815 and 1820 it was considered necessary that some effort at reform should be made. In 1820–21 Sir C. Metcalfe, then resident, after visiting the country, held that further protection against over-exaction or other oppressions must be afforded to the ryots or peasantry. Urged mainly by his representations the Nizam's government concluded money settlements on tolerably moderate terms with the ryots for brief periods of years in most of the districts. British officers were appointed to move about the interior to see that no contravention of these settlements was allowed, and without interfering in the revenue administration they caused redress to be afforded to complainants, and in this way served to check the previously existing malpractices. The effect of these measures was felt up to the year 1830. Shortly after the British officers were withdrawn, and though the moderate settlements which they left behind them were

for a time maintained, yet the benefits of these settlements were but little appreciated. By degrees all limitation of the State demand was given up; and the system of assigning or farming out the revenues of whole districts to individuals increased, by which all sorts of evils were multiplied. But, despite the growth of monster abuses, and the too frequent paralysis of the restraining power of the government, from about 1830 to 1853, the ryots or peasantry were seldom reduced to severe distress or oppressed beyond bearing; and their condition was by no means so bad as might have been apprehended from the faults of the system which prevailed.

More recently money payments have been settled from year to year with the ryots, and pains have been taken more and more to render these annual settlements equitable and moderate. In the Telingana districts payments in kind, made according to rough appraisement of the crop, or by actual division of the produce, prevailed until a late period. Now, however, regular cash payments annually have been fixed in most cases. In the districts which were under the management of British officers from 1854 to 1861, the summary settlements made during that period have been extended since from year to year with scarcely any modification. Although regular settlements, even for brief terms of years, have not generally been made in the Deccan, yet great care has been taken in the preparation of annual village papers. There was a tolerably good classification of soils, according to which details the demand was assessed.

In the year 1865 the Nizam's government ordered a further money settlement, or, in other words, a limitation of the State demand, to be made for all the Mahratwaree districts on a rough survey or examination of the fields for a period of three years. This settlement has been since going on, and was still in progress. Similar orders were issued for the Telingana districts, but little advance has been made, partly by reason of the ryots being less accustomed to fixed money payments, and to their being less desirous of engaging for any term of years.

Years.	Land Revenue.
	£
1861–62	869,781
1862–63	915,776
1863–64	990,649
1864–65	1,020,356
1865–66	1,026,442

There has been some increase of cultivation, and the cultivators have been able to pay more revenue than before, owing to the great rise in prices, allowing them to command much higher rates for their produce. The increase in the land revenue, as shown in the margin, has been gradual, but by no means proportionate to the increased means of the tax payer; whence it is to be inferred that the condition of the peasantry must be considerably improved. The rise in the prices of all articles of food, and the consequent distress to nearly all classes of the capital towns, have been notorious, and have often caused much anxiety at Hyderabad with its large mob and its turbulent military classes; in consequence of the vigilance of the native government no food riots worth mentioning have occurred. Extra allowances were granted on account of dearness of provisions to military and other establishments, and relief was liberally bestowed on the indigent poor, who, unable to raise produce by their own labour, were depressed nearly to starvation by the high prices. Large sums were disbursed in this way. Still all classes, high and low, connected with land or with trade continued to flourish.

The excise and abkaree tax, levied here as in all the British territories in India, on all spirituous liquors and intoxicating drugs produced or consumed in the country, has at various times been raised by sale licences, by the establishing of shops under the supervision of the excise authorities, and by other methods. But of late a general system has been introduced whereby in the districts or zillahs the tax is farmed out by auction to the highest bidder. For the city of Hyderabad the tax was not farmed out, but kept under direct management by a special establishment. Much of the liquor consumed in the city consisted of brandies and other foreign spirits, and the duties were included under the octroi. The aggregate amount realized during the year 1865–66, for these territories stood at 148,435*l.*

The customs and octroi duties have of late years caused much discussion, which has terminated most satisfactorily. These matters were apparently placed on a good basis by the commercial treaty of 1802 between the British Government and the Nizam. This treaty contained three main provisions, *first*, that all internal transit duties should be abolished; *second*, that an import duty of five per cent. *ad valorem* should be levied on all articles imported into the Nizam's dominions;

third, that a similar duty of five per cent. should be levied once on the prime cost of all commodities purchased in His Highness's dominions for exportation. The transit duties were, however, still maintained or revived in direct contravention of the treaty by the various talookdars, jagheerdars, zemindars, or other chiefs, who acquired more and more independence according to the weakness of the central government at the capital. But about 1863, complaints became so loud, and acquired such force and influence from the high prices of all articles of consumption that the attention of the Nizam's government was drawn to the objectionable, and indeed unlawful, character of these transit duties. The main difficulty in abolishing the system arose from the many interests which had grown up in connection with it, and which arrayed many influential persons against reform. The minister, however, did, with the advice of the resident, resolve on proposing an entire abolition, affording compensation to the interests affected thereby; and this equitable measure was cordially approved of by the Nizam.

In 1864 further arrangements were made for the better execution of the treaty of 1802. Schedules were published of the five per cent. *ad valorem* duties to be levied on all articles (save grain) imported into the Nizam's dominions. The frontier customs department was placed on an improved footing, and regular custom-houses at appropriate points were established. It was specially arranged that the duty on articles imported into the capital, Hyderabad, and the adjacent British stations, also certain other cantonments in the interior of the country, should be separately collected, and enforced by means of a fiscal cordon round these stations. But articles thus destined and consigned were only to pay duty once, or, in other words, articles taxable at these places were not to be taxed on the frontier. But in reference to the high prices of food, all import duties on grain, whether on the frontier or on the cordon round the cities and stations, were remitted; the object being to facilitate the influx of provisions for popular consumption as much as possible. The five per cent. duty leviable within the Nizam's dominions on all things destined for exportation has been reduced to a light duty of about tenpence per bullock-load on grain leaving the country. This remission was very beneficial. All duty on the internal traffic of the country (except the importations into Hyderabad and such stations already alluded to) has been altogether abolished. The receipts of the customs and octroi have increased from 134,813*l.* in 1861-62 to 301,211*l.* in 1865-66, or about 124 per cent. in five years.

The general increase of the gross revenues of the Nizam's territories has risen from 1,163,850*l.* in 1861-62 to 1,601,845*l.* in 1865-66, which was about 37 per cent. in five years; and the net revenues had increased in the same period at the same rate, the rise in each case was progressive from year to year.

Administration of Justice.—Originally throughout the Nizam's dominions the judicial system was tolerably complete as regards the Mahomedan classes of the population, while the Hindoo population were in ordinary matters left to their own laws and usages. There was a department styled "Sudarut," for the trial of civil causes. The office of Mahomedan Kazi was established not only in the principal towns, but also in the districts of the interior; and to the Kazis were referred for opinion criminal cases of importance, and cases of inheritance, partition of family property, and the like. The Kazis were still maintained all over the country, and although in the interior they were more like notaries and marriage registrars than judicial officers, yet in Hyderabad, the capital, they exercised judicial functions of some importance. At most periods disputes relating to mercantile accounts would be referred to arbitration; and, under any circumstances, few judicial awards of any consequence could be executed without the support or the interference of the district officer, or the provincial executive. During all recent periods the districts already described as the Surf-i-khas, the Paegah jagheer, and the city jagheers, have in judicial matters been independent of the "Dewanee," or the country generally under the ordinary government of the minister. In these districts all cases have always been settled under the direction of the chiefs respectively, save in cases of the most heinous criminal nature, or in cases of capital punishment, in which the sanction of the Nizam would have to be obtained. But whatever judicial arrangements may have existed they have fallen into much desuetude, and at periods between 1820 and 1845 they were almost obliterated. A variety of usurpations grew up on the part of individuals, in other words, those who were strong enough systematically took

the law into their own lands. Arab chiefs claimed the sole right of punishing with imprisonment or otherwise offences committed by their own men, and enforced payment of debts due to them by confining the person of the debtor, or by surrounding his house with armed men. The same process would be resorted to, with rather less severity, by noblemen and other chiefs, and even by rich or powerful bankers and traders.

Efforts at reform or improvement became necessary. In such measures a distinction has always been drawn between the capital of Hyderabad and its environs, and the interior of the country. For Hyderabad itself there was established in 1846 a criminal court, with two judges, to which all persons resident at the capital were to be amenable. But as it was found difficult to enforce obedience to this court on the part of the increasing bands of Arabs, with the express sanction of the Nizam, an additional criminal court with five judges was established, especially for Arabs and other classes of that description. A regular civil court was also set up with one judge, till about three years ago, when two puisne judges were added. In the interior of the country judicial officers were appointed for each talooka or district, who were all separate from, and independent of, the regular district executive. The authority of these several tribunals was somewhat of a precarious character, that is to say, influential persons, whether military chiefs, or powerful landholders, or rich bankers, or influential noblemen, or persons about the court of the sovereign, would refuse to submit to their jurisdiction; and no decree of theirs, of any consequence, could be executed without reference to the principal executive; and even then the ultimate execution would often fail. At the same time, all irregular or improper jurisdiction usurped by individuals, whether Arabs, noblemen, or others, was prohibited, and to some extent put a stop to.

In 1865, about the same time that the new arrangements regarding civil administration were effected, there was introduced the framework of a real judicial system throughout the interior of the country, that is, in all the districts under the direct control of the Dewan or minister.

Each class of civil officers had certain judicial functions assigned to it. A central court was established at Hyderabad, consisting of a president and five judges, to receive appeals in civil suits from the decisions of the district officers, and to pass appellate decisions. Its duty was to dispose of all criminal cases committed to it requiring sentence beyond four years imprisonment, to pass sentence of imprisonment for life, to carry out the same on its authority, and to pass capital sentence, but to obtain the final sanction of the Dewan or minister before actual execution. As cases would come to this court in Hyderabad from long distances, no prisoners, witnesses, or parties, were to be sent before it, and its proceedings were to be based on the records of the lower courts. The proceedings of this court were to be subject to a court of final appeal.

For Hyderabad and its immediate environs, an upper and lower court was established for civil suits, the former consisting of three judges. For criminal cases a police magistrate's court was set up; and for criminal trials of the more important character there was a criminal court, consisting of three judges empowered to pass sentence in all cases save those deserving death, which were to be referred to the court of final appeal. In each of the courts, consisting of two or more judges, the chief judge had executive control over the court.

The appellate court just mentioned was constituted as the superior court for the whole country, and consisted of a president and five judges. It was appointed to receive appeals from the Hyderabad civil court, and to dispose of criminal cases committed to it by the criminal court; in cases of capital punishment it was to obtain the sanction of the Nizam's government through the minister, and it was to review the proceedings of the central court.

In the bureau of the minister there was a separate judicial department under an officer, who was really the judicial secretary to the minister. To this department come all the returns and tabulated statements from the various courts both at the capital and in the interior, and all sorts of troublesome matters arising out of disputed execution of decrees, resistance to judicial process, and the like. In such matters the courts can only refer to the minister, who affords assistance or support according to the needs of the case.

In civil cases the various courts are guided by the Mahomedan law for the Mahomedans, and by the Hindoo law for the Hindoos, with occasional resort to

arbitration; and in all other cases they proceed in accordance with equity and good conscience. In criminal cases they follow the Mahomedan law. In respect to procedure, a few plain and simple rules have been prescribed, as there was supposed to be difficulty in laying down anything more elaborate in the present condition of the people.

The judges of the Hyderabad courts have been almost always Mahomedans of the Moulvie class, supposed to be learned in the law. All these officers were well educated, though all have not done well; several had originally received a training in one or other of the British provinces. Many discharged their duties with more or less of efficiency; and some have by their firmness and uprightness brought credit to their department.

But from this general judicial system, the Surf-i-khas districts, the Paegah jagheers, the city jagheers, and the outlying chiefships have been excepted. The respective chiefs of these several tracts administer justice after their own fashion, subject to the general control of the government; and have not to obtain specific sanction in any save capital sentences. But they sometimes referred cases both civil and criminal to the regular tribunals above described.

In the department of civil justice, the total number of original suits on the files in all the courts of the various districts for the year 1866–67 amounted to 6,815 cases, of which 4,649 were decided during the year, leaving 2,166 pending at its close. The amount of litigation, though less in proportion as compared with the probable population than the litigation in the Central Provinces and Berar, was, nevertheless, considerable. The number of cases pending at the close, showed an increase of 622 over the preceding year.

The total number of appeals from the subordinate to the talookdar courts amounted to 427, of which only 176 had been decided during 1866–67; and of 47 appeals from the district courts to the central court at Hyderabad, only 16 were decided, which did not show very satisfactorily as to the working of these courts.

In Hyderabad itself, considerable difficulty has been experienced in dispensing civil justice, partly owing to the judges themselves, but mainly to the action of the people of the city, who endeavour to throw every obstacle in the execution of law and justice. Hence it is difficult in Hyderabad city to get a decree passed in any large civil suit, and still more difficult to execute it, and applications from the courts to the executive government, that is, to the Nizam's minister, for assistance are very common.

The stamp system in respect to judicial papers prevailed to a limited extent in the Nizam's dominions; and at Hyderabad there is a regular stamp office, whence papers are issued much in the same manner as in British territories. The revenue yielded was small at first, but has increased annually. But the rule has not yet been introduced into the Hyderabad courts, where its want was much felt.

There are tolerably elaborate returns of the administration of criminal justice, but not such as to facilitate that exact criticism which is practicable in British territories. Some attempt has however been made to exhibit the result of the returns for the year 1866–67, for the districts under the Dewan or minister, exclusive of the jagheer districts, for which no statistics were available. The total number of crimes and offences before the district courts was 6,250; the number of persons apprehended amounted to 5,858; cases successfully prosecuted by the police, were 5,492; the amount of property stolen was valued at 23,705*l.*, of which 5,621*l.* was recovered; and the persons under trial at the close of the year numbered 1,870.

Infanticide, suttee, human sacrifice, are reported not to exist. The work connected with the suppression of thuggee is performed by a British officer under the general arrangement made for this purpose throughout the native states India. The number of persons arrested for this crime during the year 1866 was nineteen, of whom eight were convicted and sentenced, ten acquitted, and one released on security.

The business of the district criminal courts may be thus set forth:—Out of 6,738 cases 5,864 were disposed of, leaving only 874 pending at the close of 1866–67.

There were a number of criminal cases committed to the central court at Hyderabad by the talookdars as being beyond their powers. The business of that court on the criminal side amounted to 486 cases, of which 405 were disposed of in 1866–67. The arrear at the close of the year was considerably greater than at the close of

the preceding year. This court also disposed of 1,659 other criminal appeals and cases.

Besides the district courts, there are the criminal courts for the city of Hyderabad and its suburbs. The police magistrate's court for the trial of petty cases, disposed of 1,167 cases out of 1,310 brought before it, 75 were struck off, and 41 were referred to the higher courts, only 27 cases were left at the close of the year.

The business of the principal criminal court for the city of Hyderabad and its suburbs showed 944 cases disposed of out of 1,116 set down for hearing; in some cases the action of this court was impeded by opposition and delays incident to such a state of society as that of Hyderabad. The court, however, maintained a good repute, and was considered the best in the Nizam's dominions. The judge (originally trained in the North-west Provinces) was well known to be an excellent officer.

The cases submitted or committed to the court of final appeal amounted to 130, of which 129 were disposed of in 1866–67.

Jails.—There were 15 jails in all in the districts under the dewan or minister, in which there were 3,592 prisoners at the close of the year, and there were besides six jails in and about the city which had 846 prisoners; thus the total prison population amounted to 4,438. The prisons are not constructed on any particular plan nor is there anything like the sanitation, discipline, and organization which have been introduced in the British jails. They more resemble the temporary prisons of newly acquired British districts, consisting of a square sort of native structure closed outside, except one entrance, and inside open on a quadrangle, the walls being made of mud and the roofs tiled, the intention of the Government certainly being that the prisoners should be properly fed and cared for. The prisoners are ironed in the usual manner, and worked on the roads in the day time. The female prisoners are kept separate from the male.

Police.—According to the original constitution of the Nizam's government the existence of a police in the regular sense of the term was difficult to define. Much of their duty was performed by the troops. Such troops, were, indeed, so entirely irregular and so loosely constituted as to be scarcely distinguishable from a constabulary, but still they were held by their government to be a military body.

From various causes there was not in the interior of the country any organized police, raised and paid as such, or constituted as a department under the government. In Hyderabad, Aurungabad, and some other cities there were regular police officers styled "kotwals," who had under them establishments strictly constituted as police, and exercising civil functions alone. The post of chief police officer of the city of Hyderabad has always been one of great influence and importance, and though the appointment issued through the minister, yet the sovereign generally took more than ordinary cognizance of the matter.

Along the main lines of trunk road there were police posts, which were not regularly or permanently established, but casually maintained according to the requirements of the moment, and for the protection of particular interests. The ancient institution of village watchman has always existed all over the Nizam's dominions fully to the same extent as in other parts of India. It partook of the character of police, and was especially to be met with in the northern and western portions, generally described as the Mahratta territory. But in the east and south-east portions called Telingana, or the Teloogoo country, this institution has been much strengthened by the existence of a sort of hereditary police official termed Munewar, an institution derived from the Hindoo dynasties which preceded the Mahomedan. The Munewar's original function was to supervise the village watch, and to keep the peace generally within a certain circle of villages. At first these men were doubtless hereditary police officers, but in later days they often figured as rural chiefs, and sometimes as turbulent subjects.

When the talookas or districts were taken out of the hands of military chiefs, bankers, or talookdars, more or less in the position of farmers, the commencement of a police department was first made. A civil force was raised under the name of Nizamut, and under the talookdars, and four superior police officers styled Zillahdars were appointed, with some military force under them, for the prevention of plunder and marauding. Ultimately a general police force for the whole country was organized and distributed proportionately among the several districts of this territory under the orders of the talookdar, and performing all the duties of a constabulary. The general rules and orders relating to the police department issued from the mujlis or administrative board at Hyderabad.

The total establishment of this police at the present time stands at 350 horse, and about 7,000 foot. The annual cost amounts to about 68,070*l.* The pay of a mounted policeman is 2*l.* 10*s.* per mensem; a foot policeman from 10*s.* to 12*s.* per mensem. The pay of the officers of the police (all natives) ranges from 2*l.* to 18*l.* per "mensem." As compared with the known area and probable population of the country, this establishment would appear to be tolerably economical; but then it only performs the strictly civil duties of a constabulary. Much of the work done in British provinces by the quasi-military branch of the police, such as treasure guards, escort duty, and the like, was here done by the troops on detachment.

From this arrangement, as from all other civil arrangements, were excluded,—*first*, the Surf-i-khas districts under the Nizam; *second*, the Paegah jagheer under the Shums-ool-oomrah family; *third*, the jagheer tracts immediately surrounding the city of Hyderabad; *fourth*, the city of Hyderabad itself. In the Surf-i-khas districts the Nizam's talookdars seem to keep up a police system tolerably efficient according to the old plan. In the Paegah jagheers, something like a police has been raised, especially along the main lines of road. In the jagheer tracts comprised within a radius of about 20 miles all round the city of Hyderabad, a special department has been organized, by liberal expenditure with a view to efficiency, termed the suburban police. This suburban force consisted of 37 horse and 480 foot, at an annual cost of 7,249*l.* It controlled the most important police jurisdiction in the country, and fortunately among the best managed. Within the city of Hyderabad itself the police remained on the ancient footing; the kotwal or chief officer, though appointed by the minister, really looked to the Nizam direct. Though this state of things showed a vast improvement over former times, though violence no longer stalked about in broad daylight, though blood no longer flowed in the streets, still this result was owing to the general amelioration and softening of manners and to the forbearance of powerful factions, rather than to any inherent force or vigour in the city police.

Recently the general police system, above described, has undergone an important change. The ultimate control departmentally rested with the administrative board. When the board was reduced in numbers it was relieved of all police work, which was then entrusted to a separate departmental head. Under this officer were appointed five deputies to help him in the departmental supervision. their number and the limits of their jurisdictions corresponding with the several suddur-talookdars already described.

Education.—Formerly nothing was done in the shape of State education under the Nizam's government, the existing schools being either private or indigenous, as in other parts of India; and though probably quite as numerous as elsewhere, they were much below the wants of the people. In 1856–67 the Nizam's minister established a school in Hyderabad of a superior order. This institution is now flourishing, and had 480 pupils, of whom 70 were receiving English education. Schools are now maintained by the Nizam's government at various places. Latterly a commencement of organization has been made by the appointment of a native gentleman as educational secretary to the minister, and he has been deputed to make a circuit in the districts with a view to a further establishment of schools. The educational expenditure has hitherto been small, amounting to 2,268*l.* in 1865–66, and 3,612*l.* in 1866–67. The schools at the British stations in the Nizam's dominions were kept up by European influence, though often with the support and aid of the native government. Such were the Chudderghaut school (near the Hyderabad residency), numbering 91 pupils, of whom 35 were learning English; the anglo-vernacular school at Secunderabad, with about 80 pupils, of whom 55 were learning English; and schools of lesser size at the several cantonments of the Hyderabad contingent.

In 1846 a medical school was also established at Chudderghaut, which has been superintended by successive residency surgeons, who receive a special allowance on that account from the Nizam's government. It has from its commencement to the present time sent forth 37 native pupils, who have been examined and passed by committees of British medical officers. The men thus certificated possessed superior qualifications, hardly inferior to the sub-assistant surgeons in British provinces. Some practice in the city of Hyderabad; others are employed by the native government to take charge of dispensaries in the districts of the interior, of which there are now 18. A large dispensary has been

recently established by the minister for the city of Hyderabad, where relief is afforded on an average to about 23 in-patients, and 1,277 out-patients monthly.

Forests.—The Deccan is a hilly country, and contains many forests which yield quantities of valuable timber. The best forests are those in the hill ranges on either side of the Godavery valley, and of these, again, the finest are those towards the eastern part of the valley in the neighbourhood of the well-known Pakhal lake. There are also forests on the north of the Kistna valley in the direction of Kurnool. From the Pakhal forests the British ordnance department at Secunderabad obtain rosewood, seewun, satin-wood, babool, and other timber. The conservation of forests has only of late been systematically attended to by the Nizam's government. The same sort of destruction and waste has been going on here as formerly in other parts of India. Recently, however, the Nizam's government have regularly set up a forest department, have called for detailed reports, and a native conservator of forests has been appointed with several deputy conservators.

Public Works.—In the old organization of the Nizam's government no place was assigned to a department of public works, and there was no fixed provision nor any annual allotment of funds for such purposes. At the same time that the Deccan was not entirely devoid of such works, is proved by the noble traces throughout the country of public structures which, still survive as monuments of the skill and enterprize of the early Mahomedan dynasties, and of their predecessors the Hindoos. The first attempt to organize a public works department was made some years ago by the appointment of European and Eurasian engineers, chiefly for the repairs of tanks, and by a small annual budget allotment amounting to about 16,800*l.* Estimates amounting to 59,853*l.* in the aggregate have been allowed within the last two years for public improvements in the districts of the interior. A further step in organization has been taken by the appointment of a gentleman to a position corresponding to the office of chief engineer and secretary to the government for public works. Doubtless this will lead to more active progress, and to more liberal allotment of funds annually.

In respect to irrigation, it may be said that, with the exception of the plain of the Godavery near Nandair, and, perhaps, some few other places, the whole of the Nizam's Deccan is a region of tanks or lakes. The number of tanks in use amount to many thousands for the various districts. In the zillah of Nulgonda alone there are between 1,800 and 2,000 tanks, and in the zillah of Kummum upwards of 2,000 tanks, many of which are large sheets of water, and some of which fully possess the dimensions of lakes. The best irrigated districts are those of Telingana proper, comprising the eastern part of these dominions, the table-land situated above the ranges of mountains known as the eastern ghants of India, and stretching from the Godavery to the Kistna, Hyderabad itself lying in the western limit of the tract. The surface of the country is for the most part undulating, with numerous hollows and depressions, and with detached granitic hills cropping up picturesquely in all directions. The drainage of the monsoon or summer rains is stored in tanks formed by damming up these hollows. In many places the permanency of the water supply is assisted by channels drawn from the rivers or rivulets which thread the country, and flow into the Kistna or the Godavery. Despite the efforts made during the past two years, the tanks of Telingana proper are in a very indifferent condition, the storms of 1864 (the year of the Masulipatam cyclone disaster) having caused much havoc among them. The same may be said of the tanks in the western districts near Koolburgah. In other parts, however, such as the central districts round Hyderabad, the tanks are in better repair. The renovation, or rather reconstruction, of the old channel, 30 miles long, leading from the Moosa river to the Hosen Sagur lake near Hyderabad, was completed in 1862 at a cost of 10,000*l.* (exclusive of sums spent on previous experiments which failed); this has caused considerable extension of irrigation near the capital. In the same neighbourhood the new tank on the Golcondah road promised well, and the lake constructed in 1810 under orders of Meer Allum, the then minister, is a beautiful sheet of water, affording a first rate supply to the city of Hyderabad.

Railways.—The main trunk line of the Great Indian Peninsula Railway, running from Bombay to Madras, passes through the south-western portion of the Nizam's dominions. This section of the line is 50 miles in length; it enters these territories shortly after leaving Sholapore in the Bombay Presidency, and crossing first the river Beema, then the Kistnah, it touches the town of

Raichore itself, and after crossing the Toombudra river, enters the Bellary district of the Madras Presidency. Koolburgah will be the station for traffic between Hyderabad and Bombay, that being the nearest station on the line to Hyderabad, from which it is distant by road 135 miles. Traffic between Madras and Hyderabad will take or leave the rail somewhere near Gooty in the Bellary district. The greatest works on it will be the viaducts over the Beema and the Kistnah, that over the Toombudra is being built by the Madras Railway Company. The piece between Sholapore and Koolburgah is about half finished, and may be completed in a year or year and a half. The remainder of the section will probably not be completed for two years and more.

Roads.—The roads in the interior are mere tracks; and even with important lines is this the case. In this matter the Deccan is probably not at all peculiar among native states. At various times the Nizam's government have been induced to do something in this direction. Since 1856 a sort of convention has been entered into with the Nizam, whereby the surplus of the spirit excise in the cantonment of Secunderabad, which may accrue after defraying various local charges, shall be devoted to the construction or maintenance of certain lines of road. The British resident has been charged with the supervision of this expenditure, and a civil engineer has for some years past been employed upon the execution of this work.

Municipal Works.—Though slight municipal taxes have been levied in some towns from which conservancy expenses might be defrayed, yet nothing like municipalities really exist anywhere, except at the British stations. Most of the district officers do, however, effect something for the conservancy of the towns where their head-quarters are situated. The conservancy of the city of Hyderabad itself, despite its unsurpassed advantages in drainage levels and in water supply, has been for at least more than half a century extremely bad, though originally the place was excellently laid out by the Golcondah sovereigns, and though, under the dynasty of the Nizams, their ministers have added tanks and market-places to the objects of interest at the capital. Among the population of such a city as Hyderabad the prejudices against municipal improvement are strong and deep-rooted, though not ineradicable if efforts were judiciously and persistently made. In a sanitary point of view the subject might at any time become of imminent importance, all which has been duly represented to the Nizam's government. Of late some improvements have been effected, but it was impossible to say how far progress could be anticipated. In the suburbs the improvement has been greater; the new street leading from the British residence to the city is a fine one of its kind.

Statistical Department,
India Office,
1 May 1868.

CHARLES C. PRINSEP.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

I N D I A,

DURING THE YEAR 1867–68.

(Presented pursuant to Act of Parliament.)

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA,

DURING THE YEAR 1868-69.

INTRODUCTION.

INTRODUCTION. AMONG the numerous interests which claim attention in "A Report on the Moral "and Material Progress of India," it is not difficult to select three topics which give an individuality to the year 1868-69. They are,—the retirement of the late Governor-General Sir John Lawrence, at the end of his term of office, and the advent of his successor, Earl Mayo; the drought which caused distress and anxiety throughout the greater part of British India, and severe famine in Rajpootana; and the serious deficit which became apparent at the close of the financial year.

Sir John Lawrence was appointed Governor-General at the close of the year 1863, on the death of Lord Elgin. He brought to bear upon the Government of India the weight of his great ability and long experience, and his retirement closed an active career of 40 years, devoted continuously to its service. On his return to England Her Majesty was graciously pleased to raise him to the peerage under the title of Baron Lawrence of the Punjab, and of Grately in Hampshire. Earl Mayo took the oaths and his seat as Governor-General at Calcutta, on the 19th January 1869.

The drought was wide spread, but unequal in severity. Rajpootana with its area of desert and its scanty water supply was most affected. It is usual for the population of the more arid districts to migrate to some of the more favoured neighbouring states, but on this occasion all were visited alike by the scourge, which was the most calamitous on record. Thousands of the famine-stricken poured into the British territories in search of food, greatly aggravating the burden already felt there. In the Central Provinces the drought though less severe, was universal; in the North-Western Provinces, the northern districts, and those bordering on Rajpootana suffered most; in the Punjab, those south of the Sutlej. In Madras there was slight anxiety, and in the Lower Provinces still less.

A detailed narrative of the distress and of the measures taken to avert it, is contained in the chapters devoted to the two first named provinces. On the political aspect of these measures, so clearly set forth by Mr. Morris, Chief Commissioner of the Central Provinces, it will be interesting to quote the following from that gentleman's report.

"It must be never forgotten that the measures initiated by the Government in 1868 amount in fact to a new policy. In the earlier years of British rule State assistance was limited to the Native method of remitting revenue, but this under the native system was only one part of a general scheme which turned on a full recognition of the State as landlord. The Mahrattas probably laid more stress on the rights of property than on its responsibilities, but the greater the share which they assumed of the fruits of the soil, the more helpless they left the cultivating

Vincent Brooks Day & Son, Lith.

classes; and therefore to prevent an entire collapse of the agricultural system, they were bound to regulate its machinery minutely and watchfully, and in times of difficulty to take almost the whole burthen of supporting farmers, who had never been encouraged or indeed allowed the opportunity of standing by themselves. Thence arose the yearly fluctuation of the assessments, to adapt them to the seasons, and the storage of grain in warehouses, whence seed and food grain were lent to the people to be repaid with interest at the first good harvest. Our revenue system, even before it had developed a proprietary body independent of the State, leant towards European models, and attempts were made from the first, by fixed revenue settlements on comparatively light terms, to wean the land farmers from their dependence on authority. Hence the Government retired from its position as a grain-dealer, and though our system was obviously better calculated to promote the prosperity of the country in the end, it is questionable if at the commencement of British rule the poorer land-holders did not sometimes look back with regret to the days when tney had to exercise no thought for the morrow. In another important branch of relief—the support of the old and infirm poor—our predecessors had a method which it was not easy to replace. The richer inhabitants of the famine-stricken districts or tracts were authoritatively invited to succour their poorer neighbours, and thus the Government provided for its starving subjects absolutely without expense. The few thousand rupees which the English Government distributed among millions of people in the first outbreaks of distress with which it had to deal, were a poor substitute for the enforced charity of hundreds of rich men, and even the subsequent system of large Government relief works in selected places, and relief Committees distributing alms, contributed half from private sources and half from State grants, left a good deal dependent on private impulse, and certainly failed to search out the whole of the existing distress."

"The policy adopted during the past year, though in form but a development of former measures, was animated by the bold enunciation of a principle which, if not previously denied, was at least never so unreservedly admitted. The State has now publicly announced its responsibility for the life of the least of its subjects, and has proved to them its good faith by a measure of liberality, regulated rather by the wants of the people than by precedents or calculations."

In Parliamentary returns already published the Indian accounts have been detailed with all fulness. It seems, therefore, scarcely necessary to notice in this Report more than briefly some of the main points connected with them.

The *gross revenue* of the Empire (including some small receipts in England 177,436*l.*), realised 49,262,691*l.* and exceeded that of 1867-68 by 728,279*l.* The *expenditure* amounted to 52,036,721*l.* or 2,494,614*l.* more than in the previous year.

There was thus a deficit of 2,774,030*l.* or, if the expenditure be made to include Public Works extraordinary, one of 4,144,643*l.*

On the side of receipts there was an increase under nearly all the heads; but in three of the four principal feeders of the revenue,—land, salt, and opium, which together produced close on 34 millions out of the 49 millions—there was a falling off. Land revenue yielded 19,926,171*l.* The decrease of 60,000*l.* compared with 1867-68, which this represents, was a consequence of the unfavourable season. So was the decrease of 137,853*l.* in salt which produced 5,588,240*l.* The most serious falling off was, however, in the opium returns, which yielded 8,453,365*l.* or 470,203*l.* less than in 1867-68, owing to the smaller cultivation in the Malwa State, doubtless also a result of the season.

On the expenditure side the chief item of increase in India was "Public works "ordinary," which had allotted to them 6,433,517*l.* or 633,248*l.* more than in 1867-68, and 460,177*l.* more than the estimate. The relief works for the employment of the distressed were the principal cause of the unfavourable difference.

Two events of interest which took place during the year deserve special mention. The visit of the Ameer Shere Ali to Earl Mayo at Umballa in April 1869, and the purchase by Government of the whole of the undertakings of the East India Irrigation and Canal Company in Behar and in Orissa for the sum of 1,054,000*l.*

With regard to the general arrangement of the Report much the same course has been followed as last year. The chapters on each administration are preceded by notices of various subjects which it will generally be found require to be treated as a whole.

POST OFFICE. Financial results.

The year under review is remarkable, both for an unusually large increase of revenue and an unusually large increase of expenditure. The receipts, including official postage, were 608,447*l.* in 1867–68; in 1868–69 they amounted to 686,072*l.* The disbursements in the two years were respectively 475,494*l.* and 537,020*l.* These figures give a net revenue greater by about 15,000*l.* than in the previous year; but from the point of view which regards the Post Office as an institution *deriving a revenue from the public only in return for services rendered both to the public and to the government*, the revenue from private correspondence, which in 1864–65 fell short of the total expenditure by only 51,400*l.*, in the year under review fell short of it by 126,450*l.*

Since 1858–59 (the year following the mutiny) there has not been a year with so large an increase to revenue from private correspondence. For the nine years from 1858–59 to 1867–68 the average yearly increase was 15,000*l.*; in 1868–69 it was 33,109*l.*

On the other hand, while the average yearly increase of expenditure for the nine years was 13,720*l.*, in the year under review it was 61,526*l.* The reason is easily to be explained. More than a quarter of it (16,329*l.*) was due to the cost of special trains for overland mails, for which no payments had been made in the previous year, because the rate of charge had not been settled. Moreover, in 1868 Government also determined to make the Post Office pay for the haulage of sorting carriages by railway, and the amount was 4,962*l.* These two items deducted, amounting to 21,291*l.*, about 40,000*l.* remains to be accounted for, or little more than the year's increase of revenue from private correspondence. Even with regard to this balance there are special explanations. During five months of the year there were heavy charges on account of famine allowances; expensive additions were also made to several of the chief mail cart lines; and, lastly, a revision of Post Office establishment, involving a very necessary addition to the salaries of the delivery peons or postmen, came into operation in 1868.

Sea sorting.

The re-arrangement in 1867–68 of the postal service between India and Europe, under which Bombay became the Indian port of embarkation and disembarkation of the entire overland mails, has been followed by the introduction of a system of sorting the mails on board the steamer instead of in the Bombay Post Office, whereby delay often amounting to a whole day is saved.

Increased correspondence notwithstanding higher rates.

Notwithstanding the considerable enhancement of postage rates, the correspondence between India and England has increased considerably under the new arrangement, owing not merely to the greater frequency of the means of communication, but to the Bombay route being considerably quicker than the old routes.

Indian share of postage.

The value of the Indian share of postage, viz., 1*d.* per ½ oz. letter, has virtually been reduced in respect of paid letters from India, owing to the heavy discount at which in India stamps are sold. Considering the now increased cost of the Indian inland transit of overland mails,—the virtually reduced share of Indian inland postage, and the fact that the Indian Post Office spends much more on their mails than it receives by way of postage on them, seem, in the opinion of the Director-General, to lead to the conclusion that the Indian share of postage must be increased.

Local steam services.

The local steam services performed under contract with the British Indian Steam Navigation Company are—

(1.) Calcutta and British Burmah *weekly*, with a continuation to the Straits *once every four weeks.* (Subsidy 2,133*l.* per mensem.)
(2.) Bombay and Kurrachee *weekly*, with a continuation to the Persian Gulf *once a fortnight.* (Subsidy 2,311*l.* per mensem.)
(3.) Calcutta, Bombay, and intermediate ports on East and West Coast *fortnightly.* (Subsidy 1,000*l.* per mensem.)
(4.) Madras, Rangoon, and intermediate ports on East Coast once *every four weeks.* (Subsidy 600*l.* per mensem.)

The subsidy payments on account of the above-mentioned lines will for the future be shown as charges of the Post Office Department.

There are, besides, contracts with the Irrawaddy Steam Flotilla Company for services between Rangoon and Mandalay, and between Moulmein, Tavoy, and Mergui, and with the Euphrates and Tigris River Steam Navigation Company, for services between Bussorah, Baghdad, and intermediate ports. These are not under the control of the Post Office.

POST OFFICE.

During the year arrangements were made for the more free use of the opium steamers plying between Calcutta and Hong Kong for the conveyance of mails. Formerly commanders received bounty money on the mails; henceforth they will be classed as Indian mail packets.

Increase to salaries.

The increase to the pay of the delivery peons throughout India, already alluded to, and to the salaries of the establishment in four of the provincial governments was much needed. It took effect in the latter part of the year.

Postal guide.

The first number of a Postal Guide for India was published on the 1st April 1869.

551 new post offices and letter boxes were opened during the year against 601 opened in 1867–68, and 227 messengers were besides added, who collect as well as deliver letters.

Postal lines.

There was an increase of 603 miles in all the classes of postal lines, from 49,678 miles, that is, to 50,281. Railway lines were 4,234 miles in length, or 240 miles more than in the provious year.

Correspondence.

The figures in the margin give the total increase amounting to 9·88 per cent. In letters alone there was an increase of 10·107 per cent.

1867–68	-	69,154,847
1868–69	-	75,987,617
Increase	-	6,832,770

The increase in the gross value of stamps sold in 1868–69 was 12·4 per cent., against a corresponding increase of 4·78 per cent. in 1867–68.

District post.

The district post consists of lines of communication connecting the head-quarters of each district with the interior police and revenue stations, and is maintained primarily for the purpose of conveying official correspondence. It has hitherto been under the management of the local governments, but it is gradually being transferred to the jurisdiction of the Director-General of the Post Office.

There were 33 mail robberies during the year, or three more than in 1867–68. The increase was in the British districts.

Establishment.

The persons employed permanently in the Post Office number 23,257, or about 2,000 more than in the previous year.

Inspecting postmasters -	99
Postmasters and deputy postmasters.	1,903
Clerks - - -	1,684
Peons, &c. - - -	4,512
Road establishment - -	15,059
	23,257

In conclusion it should be observed that while in England the Government service forms but a fraction of the whole operations of the Post Office, and puts the Department to hardly any appreciable additional expense, the case is far otherwise in India, penetrated as it is by State administration and State agency in every province, district, pergunnah, town, and village; where public works are constructed almost entirely by Government, not through private contractors; where education, surveys, and even municipal matters, are to a large extent controlled or undertaken by Government; and where, consequently, a very large proportion of the expenditure incurred by the Post Office is incurred directly on account of the service rendered to Government. All this should be taken into consideration in considering the financial condition of the department.

THE ARMY.

Military Strength.

The average strength of the Army in India in 1868–69, British and Native is shown in the margin. The whole force amounted to 183,000 troops, and the cost of their maintenance was 16,269,581*l.*

	European.	Native.
Bengal - -	36,795	46,276
Madras - -	12,766	45,992
Bombay - -	12,276	28,753
Total -	61,837	121,021

The country is divided into sixteen divisional, and 25 brigade commands.

EDUCATION.

The expenditure on education in India has gradually increased since 1813, when Parliament, in renewing the Company's Charter, directed that a sum of at least 10,000*l.* should be set apart annually for the promotion of education. Till about 1836 this sum was spent on the encouragement of purely Oriental literature and learning. From that time till 1854 Government schools were supervised by a committee or council of education, with a secretary; but in that year, during Sir Charles Wood's Presidency of the Board of Control, appeared the great Educational Despatch which established the present system of universities, colleges, and schools, with directors of public instruction, inspectors of schools, and grants-in-

aid, and supplied a stimulus under which education has advanced with rapid strides.

	£
1861-62 - - -	342,593
1862-63 - - -	400,361
1863-64 - - -	441,856
1864-65 - - -	531,980
1865-66 - - -	670,739
1866-67 (11 months)	674,717
1867-68 - - -	783,510
1868-69 - - -	836,990

Looking at the figures for eight years it will be seen that the sum spent by the Government of India on education, science, and art has increased from 342,593*l.* in 1861–62 to 836,990*l.* in 1868–69. And while in 1852–53 there were only 413 Government Educational Institutions with 28,179 pupils, on the 31st March 1868 there were 16,261, with an average attendance of 662,537 pupils.

TRADE.

The trade of India is recovering from the reaction which followed the abnormal state of things induced by the American war, and the extravagant price of cotton while it lasted. In 1866-67, the year of the panic, the foreign trade, including exports and imports, fell from 123,813,004*l.* to 95,440,109*l.*; in the following year it rose to 99,927,157*l.*, and in the year under review, ending March 1869, it sprang to 107,687,637*l.*, an increase of no less than eight millions sterling in one year, and that year a dull one. That produce commanded higher prices is proved by the fact that the increased exports of 1868-69 were carried by 5,103 vessels of 2,036,522 tons, against 5,843, of 2,090,192 tons, in the previous year.

SALT.

Of the four principal sources of revenue in India, viz., the land, customs, salt, and opium, the tax on salt is the only one which can be said to bear upon the general population, upon rich and poor alike.

The administration of the salt revenue varies in the several Presidencies, and likewise the duty, which has been determined as far as possible with a due regard to the very different circumstances of different parts of India.

In the Madras Presidency salt is manufactured on account of the Government, and is issued by them to the dealers at a fixed price, including duty and cost. Thus the fixed price per maund is 3*s.* 6*d.* of which 3*s.* represents the Government duty and 6*d.* the cost of production.

In Bombay the Government take no part in the manufacture of salt. They simply levy an excise duty on home-made salt and a customs' duty on imported salt; the duty in both cases being the same as in Madras, 3*s.* per maund.

In Bengal the Government discontinued the manufacture of salt in 1863, and the wants of this Province, and to a certain extent those of the upper Provinces of India, are supplied, 1st, by salt manufactured on the coast by private individuals; 2nd, by salt sold by Government, part of the stock which they had on hand on discontinuing the manufacture; 3rd, by imported salt, which comes three-fourths of it from Cheshire, the remainder from Jeddah, Muscat, Bombay, Madras, France, and Ceylon. The whole of this salt pays a duty of 6*s.* 6*d.* Private manufacture at present contributes little to the consumption of India, but looking at the small cost of its production there seems no reason why with proper arrangements and facilities for carriage Bengal coast salt should not eventually beat all imported out of the market.

Salt from Bengal is, however, but one of the souces of supply for the upper Provinces of British Continental India. The others will appear as the particular means therein adopted for ensuring the collection of the salt tax is explained.

Its collection is effected by means of a land frontier line 1,817 miles in length, traversing the continent and guarded by 10,832 officers and men.

This Imperial line may be described as separating British Continental India from Rajpootana, Central and Peninsular India, or conversely as separating from the rest of India the greater part of the Punjab (including Putteealla and other Native States), the North-Western Provinces, Oude, the greater portion of the Central Provinces, Bundelkund, and the whole of the territories subject to the Government of India, a tract of country possessing an area of 500,000 square miles and a population of 130 millions. To aid the realisation of the tax on the whole of the salt consumed within this area by levying an import duty along its entire land frontier, is the first and principal object of the Imperial customs' line; its secondary object is the levy of a light duty on all sugar produced within this tract, and thence exported by land, either to foreign states or to portions of British territory, which lying outside the line contribute less to the Imperial funds in the shape of salt tax than those portions which lie within it.

To describe exactly the direction of the customs line seems unnecessary, for a the object aimed at is the most complete supervision with the aid of the smallest possible preventive force, the direction varies from time to time as altered circumstances render such a change necessary.

It will be sufficient to bear in mind what has been said and that the line takes the form of an irregular figure 2, which starting from Mooltan on the Chenab, skirts the northern and eastern frontiers of Rajpootana and independent Central India; and at Boorhanpore on the Taptee, strikes eastwards across the peninsula to near the Bay of Bengal.

Duty-paying salt enters the tract east of the line from three quarters; 1st, on its northern boundary, coming from the rock salt mines of Kalabagh and Pindadun, towns of the salt range of mountains situated on the Indus and Jhelum respectively. This salt pays the Punjab Government a duty of 6*s.*; 2nd, on the south-east boundary, or from Calcutta principally; 3rd, across the line. This salt is chiefly manufactured in Jodhpore, at the Sambhur Lake, in the Bhurtpore State, in Guzerat, and at some towns in our own territories, paying a duty of 6*s.* per maund; or it comes from Bombay and Madras, in which case traders who have already paid 3*s.* at the works are furnished with a pass, and on coming to the line are only required to pay an equal amount, bringing the total duty up to the 6*s.* paid by other salts. The approximate total consumption of salt in the tract to the east of the line is shown above. The preventive force on the line and the internal department for the prevention of illicit manufacture are, it will be seen, so far successful that by far the greater portion of the salt consumed pays duty. The smuggled salt comes, some of it, round the eastern end of the line by the gap between the termination of the line and the coast; some crosses the line, some descends from Thibet, and a considerable quantity is known to be smuggled up the innumerable creeks in the delta of the Hooghly. Illicit manufacture is carried on within the line, in Rewah, in the Punjab, the North-West Provinces, Behar, and other districts.

	Maunds.
From the Punjab - -	1,200,000
Across the line - -	3,730,000
From the south-eastern frontier	7,900,000
Non-duty paying, smuggled, and illicit - - -	1,000,000
Total maunds - -	13,830,000

The salt duties have been the subject of consideration during the past year, and the Home Government has expressed its readiness to such a revision of them being made as shall have for its leading principle the equalisation of the duties over all the Provinces of the Indian Empire. Such equalisation would allow of the discontinuance between various portions of British territory of customs lines which are vexatious to trade as well as costly in their maintenance; though as long as any considerable duty is levied on salt at all it will still be necessary to guard the frontier of native salt-producing States.

COTTON.

The exports from the Bombay Presidency in 1868 amounted to 1,294,291 bales, and exceeded those of 1867, which was itself an exceptionally favourable year, by more than 70,000 bales.

From Bombay -	1,240,692
From Carwar -	26,393
From Sind - -	27,206
Total - -	1,294,291

Throughout the Presidency there were in use in 1868–69, 294 manual and 171 steam presses against 222 of the one and 153 of the other in 1867–68. The only gins employed, besides the native "churka," are McCarthy's. Their number was 1,288, not quite so many as in 1867–68.

The most important part of the report here made use of is that which, in connexion with the small number of cases tried under the Cotton Frauds Act, calls attention to its inefficiency for the purpose for which it was framed. The general feeling is stated to be in favour of the continuance of such an Act, though diversity of opinion, and to a certain extent of interests, makes it difficult to decide the exact course that legislation should take.

As the law now stands, he says, conviction of an offender is extremely difficult owing to the presence in section II. of the words "fraudulently and dishonestly," which cast upon the inspector the onus of proving fraudulent intention, even in the grossest cases of adulteration, and make him unwilling to prosecute, when by so doing he can only expose the weakness of the authority on which he acts. It has, therefore, been recommended that the words be omitted, and that when the

offence has been proved to be wilful it be left to the discretion of the magistrate to decide the question of motive. Another serious defect in the law is the absence of any clause to prevent the mixture of good and bad qualities of the same variety of cotton in the same bale, which is a common practice and one most detrimental to the interests of the cotton trade. With regard to *pressing*, it would much strengthen the hands of the inspectors had they the power of granting and suspending the licenses of press owners, who, under a law which makes the licensee the responsible person, can escape conviction and reopen the press under another name. The same officer who makes the last suggestion complains of the provision in the Act that no cotton can be legally examined which is not "offered for compression," or "exposed for sale." Neither of these conditions need apply to cotton until its arrival at Bombay, and as a consequence much that is adulterated passes through the districts undetected, and in its ultimate examination gives rise to the charge of remissness on the part of the up-country inspectors.

Dr. Forbes again strongly advocates the establishment of public cotton markets at all important stations, as a measure which would have the effect of bringing the European merchant into immediate contact with the cultivator and of freeing the latter from the bondage of the Native middlemen and brokers. Where they have been set on foot, as at Julgaum and Khamgaum, their success has been most marked. One of the inspectors says, "The establishment of the market is viewed "with the greatest satisfaction by the cotton owners in the district, ryots, &c., "who see that they have now an opportunity of escaping the unjust extortions "practised on them when selling their cotton. At present, by using our scales, "they sell their cotton at its true weight.

The chief stumbling-blocks in the way of the establishment of the marts are said to be the municipalities, the members of which are in many cases themselves cotton dealers and in league with the middlemen, while the hold that the latter maintain over the produce prevents agitation on the part of the European and Native buyers and the growers, which might be resented when cotton contracts required fulfilment. Dr. Forbes is of opinion that a clause in the proposed amended Bill, making their establishment lawful, would give them the stamp of authority, inspire confidence, and remove many of the present difficulties. Their control, he thinks, should be vested in the Cotton Department.

The statement in the margin shows the extent of land under cotton cultivation in 1868–69 and in the previous year.

—	1867–68.	1868–69.
	Acres.	Acres.
Northern Division -	914,343	803,634
Southern „ -	1,046,735	1,171,827
Sind and Native States	220,095	190,252
Total - -	2,181,173	2,165,713

It will be seen that while the net decrease amounted to 15,460 acres there was in the Northern Division the large decrease of 110,708 acres, which was, however, more than covered by an increase of 125,091 acres in the Southern Division. The Northern Division contains four collectorates, among which are the three important districts of Surat, Ahmedabad, and Khandeish.

In Surat the deficiency of 36,603 acres, of which 31,969 acres belongs to the Broach portion of the collectorate, probably shows a return to former limits.

The deficiency in Ahmedabad (48,773 acres) cannot be ascribed to the same cause, and shows that cotton cultivation is there getting into disfavour.

In Khandeish the decrease was 25,283 acres, and as in the case of Surat probably indicates a return to the average, and is, perhaps, also partly due to the rotation of crops.

The estimate for 1868–69 prepares us for a deficiency of 78,154 bales in the yield of cotton for 1868–69 as compared with 1867–68. Here, again, by far the larger portion of the deficit, viz., 68,046, is absorbed by the Northern Division, where with the exception of Surat, the season is reported to have been very unfavourable. The deficiency in the Southern Division is only 1,388 bales. There are seven collectorates in this division, of which the most important are Dharwar, Kulladgee, and Belgaum, the average yield of the two first being equal to that of the whole Northern Division. Dharwar contributes largely the cotton known in the home market as "Coompta."

—	1867–68.	1868–69.
	Bales.	Bales.
Northern Division -	153,928	85,880
Southern „ -	133,752	132,362
Sind and Native States	36,302	27,582
Total - -	323,982	245,824

The season in this district at first promised exceedingly well. In the beginning of January, however, there sprang up an easterly wind, accompanied by a species of blight, which in some cases attacked the leaves, drying them up and causing the plant to wither, and in others first affected the bark, and through it seemed to sap the strength of the plant. The loss here and in the neighbouring districts of Belgaum and Kulladgee from this cause is reckoned at not less than 35 per cent. of the whole yield. It is remarkable that, contrary to the experience of Mr. Rivett Carnac in the Central Provinces, it was here the indigenous cotton of the country, not the exotic variety, which suffered the most. American or New Orleans cotton has for some years past been thoroughly acclimatised in the Southern Division. Out of 1,171,827 acres under cotton cultivation in the season under report, it occupied 331,151 acres, and its use is still growing and gradually extending into the Native States.

The experiments conducted during the year with foreign seeds have met with varying success, partly owing to the unfavourable season they have had to contend against. The result, however, seems to prove that the translated cotton plant will succeed only in those districts where the surrounding conditions are similar to those to which it has been accustomed, and that until a more intimate knowledge of the peculiarities of the plant have determined its suitability for India and its habitat, it would be unfair and impolitic to force upon the Indian ryot, whose bread depends upon his land, the adoption of a seed from which an adequate return is doubtful. The experiments are therefore to be conducted by Government, who, in the opinion of the Cotton Commissioner, may rest assured that when the superiority of the exotic seed has been established, the Native cultivators will not be slow to come forward in their own interests.

In almost every division of the North-West Provinces there was a falling off in the area under cotton cultivation and in the out-turn; and in all there was a very heavy falling off from the normal crop. The average crop for the preceding seven years was rather more than 90,000,000 of lbs., so that, in fact, the yield of 1868–69 was less than half the average.

—	Acres.	Lbs.
1867–68 -	1,300,000	58,162,080
1868–69 -	890,000	44,201,280

In 1867–68 the prolonged and untimely rains injured the plant and caused heavy losses; but the deficiency of 1868–69 is due to the directly opposite cause—the long-continued drought.

With regard to the comparative demand for English and country manufactures, the former is, no doubt, preferred by the upper and middle classes; but the lower classes still hold to the cheap and strong country cloth. One district officer remarks that the coarse country cloths are (except a few special manufactures, such as fine *pugrees*) the only native fabrics which have not been beaten out of the field by English goods, and that until some coarse, strong, cheap English-manufactured article appears they have the market to themselves.

The unfavourable season prevented the Hingunghât seed from having a fair trial.

KANGRA TEA.

Tea cultivation in India is a growth of the last 40 years, and originated in the discovery of the indigenous plant in Assam in the year 1830. From Assam it was introduced into Cachar and Darjeeling, thence into the hills of North-western India, where the first crop of tea obtained in 1843 in Kumaon was so successful as to lead to further extensions of the Government plantations. Operations were pushed on, private plantations were established, and in 1850 Dr. Jameson, with the sanction of Government, established two small nurseries in the Kangra valley. When Lord Dalhousie visited Kangra in 1852, pleased with the success of the experiment, he authorised the establishment of an extensive plantation at Holta, which in 1860 produced an out-turn of 29,312 lbs. of tea, that yielded an average of 2*s.* per lb. when sold by public auction, and 3*s.* 4½*d.* by private sale. From this plantation seeds and seedlings were given gratuitously year by year to all applicants, with the object of encouraging private enterprise, until numerous plantations had been established and the planters no longer required the distribution of seed. Eventually the Holta plantation passed into private hands. The only obstacle in the way of private enterprise was caused at the outset by the difficulty of obtaining land owing to an error in the settlement, which instead of reserving to Government the rights in the waste lands, made them over to the village communities, who would not sell them. Negotiation set the matter to rights, and now, instead of dense forest or long grass and stubble covering the extensive wastes, "neat paths with hedge rows of fruit trees

" and wild roses lead through extensive tracts of rich tea cultivation, and these " tracts from barren wastes have become rich gardens," and the planter by conciliating the people and giving employment has been able largely to increase the area of his plantations by the purchase of fresh land.

All the plantations are situated in the lower slopes of the snowy range of Chumber, at elevations of from 2,500 to 5,000 feet above the sea. The aggregate area of the principal ones, 19 in number, comprises 8,708 acres, the area actually under tea cultivation 2,635 acres, and the gross aggregate produce in the season of 1868 amounted to 241,332 lbs. of tea. The average produce is 91·6 lbs. per acre, and the average price realised by sale 2*s*. 2*d*. per lb. Under a good system of high cultivation, a system that is adopted on most of the plantations, an acre of tea bushes might be made to produce 250 lbs. of tea. The cost of production and manufacture on a plantation which produces the average of 190 or 200 lbs. per acre may be set down at 1*s*. per lb. With regard to the small area actually under cultivation in the valley, this is said to be a healthy sign. " It is the too rapid " formation of extensive unmanageable estates that has led in some measure to the " disastrous results of tea cultivation in parts of Assam."

There are four markets for the sale of Kangra valley teas, viz., the home or London market, the local European, the local Native market, and the Central Asian. The home market is considered the least profitable, owing chiefly to the heavy transit charges, which from the plantation to the London market amount to $6\frac{3}{4}d$. per lb., making the total cost to the planter 1*s*. $6\frac{3}{4}d$. per lb.

The demand in the local European market, though yearly increasing, can never absorb the supply available; the local Native market is also of considerable and increasing importance. But of the four the most important for the sale of Kangra teas in the Central Asian market. The great mart for the supply of Upper India and Central Asia is Umritsur, from whence is the easiest route, viâ Jumoo and Cashmere, to Ladakh and the Eastern Provinces of Central Asia viâ Cabool, to the great Central Asian marts of Herat, Khiva, Bokhara, and Samarcand, and viâ Kurrachee, to the ports in the Persian Gulf.

Labour in the Kangra valley is abundant, and at present remarkably cheap, 8*s*. a month representing the pay of an able-bodied labourer. A difficult and costly road, running for 60 or 70 miles through the valley, is in course of construction by Government.

The report concludes by bearing testimony to the excellent feeling displayed by the planters towards the authorities and their own people.

The only plantations still remaining in the possession of Government are two of small extent in Kumaon, which in 1868 produced an out-turn of 22,857 lbs. The work of Government in inaugurating the experiment of tea cultivation having been fully accomplished, these, like the rest, will be sold at a favourable opportunity.

CHINCHONA.

There are now 2,595,176 chinchona plants belonging to Government on the Neilgherry hills, of which 1,148,424 are permanently planted out, the largest being $24\frac{1}{2}$ feet high and 32 inches in girth near the ground. 178,605 plants have been distributed to private individuals, besides 295 ounces of seeds.

A recent report by Mr. Broughton, Quinologist to Government, furnishes answers to the problems in chinchona cultivation, which were suggested for his solution when he was appointed two years ago. He has established the fact that the highly cultivated bark is superior to that grown in a wild state, and clearly shows that the febrifuge alkaloids are more abundant in vigorous and quickly growing trees, that the yield increases with age, but that the ratio of increase becomes slower until, at a certain point not yet ascertained, the maximum yield is obtained.

The red bark (C. succirubra) flourishes almost everywhere and yields abundance of febrifuge alkaloids. This species should therefore be naturalised in all the fever-haunted districts. On the other hand, C. Calisaya, C. officinalis (lanceolate variety), and probably C. Pitoyensis, though much richer in quinine, and therefore more valuable commercially, require more special conditions for their development, especially as regards altitude.

Mr. Broughton finds that it is much cheaper to extract the alkaloids from the green bark, the saving of acids being more than one-fourth. He recommends that the harvest should be taken between January and March, when the atmosphere is very dry on the Neilgherries, and that the bark should be spread out on stages one above the other to be dried in the sun, avoiding exposure to the sunlight. The

maximum yield of alkaloids in the bark is also found to be in the dry season, and the smallest during the monsoon.

IPECACUANHA. It has been brought to the notice of Government that the introduction of the ipecacuanha plant would be productive of immense benefit to the population of India, and measures have accordingly been taken for sending out a supply of the plants and for their vigorous cultivation. What quinine is as a febrifuge, ipecacuanha is found to be in cases of dysentery, one of the most common and fatal complaints of the country.

FORESTS. The greater care which has of late years been bestowed on the forests of India is apparent from the increased revenue derived from them, coupled with their better preservation, and the progress that has been made in exploring them and marking their boundaries. It is hoped that the present system of preparing a certain number of young men annually for forest service in India by a two years' course of training in the forest schools of France and Germany, will in a few years furnish a band of experienced conservators, whose exertions, directed by their able chief, Dr. Brandis, will give this department the administrative strength which its great practical importance to the welfare of the country demands.

The gross receipts of the forests have risen from 304,440*l.* in 1863-64 to 420,700*l.* in 1868-69, and it is estimated that the requirements of the Government in connexion with the new lines of railways, will raise this item of revenue to the large sum of 596,180*l.*

COAL. The total quantity of coal raised in all India during 1867 was 118,61,031 maunds, or 479,233 tons, and in the year 1868, 135,62,274 maunds, or 547,971 tons, of which but a very small portion was obtained elsewhere than from the Raniguni field.

In the space of 10 years the amount raised has considerably more than doubled, having increased steadily from 61½ lakhs of maunds in 1858 to 127¼ lakhs of maunds in 1868. The chief customer is the East Indian Railway, which in 1868 consumed nearly one-half of the total amount raised in India.

GEOLOGICAL SURVEY. The investigation of the Chanda coal-fields in the valley of the Godavery was continued during the year, and it is gratifying to learn that the additional information which has been gained on a subject whose importance as bearing on the welfare of the country can hardly be over-estimated, is all satisfactory. One of the great sources of doubt as to the extent of the coal deposits arose from the widely established fact that the beds in the group of rocks in which the coal here occurs (known to Indian geologists as the Barakar group), had invariably a tendency to exhibit very great variation both in thickness and quality within short distances. The result of careful borings, however, seems to point to the *general* continuity of the coals on a fixed horizon in the lower sandstones, and has shown that although, as was expected, there is a large amount of variation in the actual section, the beds are of considerable thickness, so much as 41 ft. 7 in. of coal having been cut in one boring in a total depth of 138 feet. It is hoped that as soon as the Chanda district is examined the investigations of the Geological Survey may be continued down the valley of the Godavery, at detached points in which small basins of the coal-measure rocks are known to exist.

Hardly less important in their practical results are the investigations which have led to Umballa being supplied with pure wholesome water. Umballa is a large military station about 50 miles from the foot of the Himalayas, where, as in many other stations in India, the insufficiency of the water supply has long been a source of sickness, anxiety, and expense. Mr. H. B. Medlicott, after his examination of the sub-Himalayan rocks, was of opinion that this much-needed supply of water was to be found in the water-bearing beds which must exist under all the country in that parallel along the foot of the hills, and that the pressure would be at least sufficient to bring it nearly, if not quite, to the surface from very considerable depths. The very first trial confirmed these sanguine expectations, and it is hoped that further trials will be now boldly carried out in those areas where, after proper examination, similar conditions may be expected to exist.

Further examination of the country, and the ascertained fact of the general limitation of the coal beds to defined areas, tend to a conviction on the part of Dr. Oldham that the great drainage basins of India existed (as drainage basins) at the enormously distant period which marked the commencement of the deposition of the great plant-bearing series. Thus the Ranigunj, the Jherria, the Bokaro, the Ramghur, and the Karunpura fields all belong to the drainage basin of the Damooda river. Itkuri (Eetcoora) and Kurhurbari fields are in the basin of the Barakar, the

largest affluent of the Damooda, from which, in the upper part of its course, it is separated by the lofty ranges of Parasnath and the wide plateau of Hazaribagh. The Kasta deposits and the limited fields near Dubrajur and the Deogur fields are in the valley of the Adjai, and limited to it, while the valley of the More, further to the north, has its small field near to Soory.

In a wider view, all these rivers may be considered to have formed one great estuary at an early period. The Talchir field, near Katták, the detached areas of Talchir sandstones in the Sumbulpur country, and the Belaspur field, are limited to the Mahanuddy basin. Palamow, the Singrowli, and South Rewah coals are all strictly confined to the Sone basin. The Chanda field, and the continuation of this field in detached areas down the Godavery valley, considerably below Dumagudiam, are all strictly confined to the basin of the Godavery and its affluents, while, similarly, the coal-fields of the Nerbudda valley are all limited to the drainage basin of that river.

In Madras, Mr. King has been able to complete a general report on the geological area occupied by the quartzites, slates, limestones, &c. which cover the large portion of the districts of Kuddapah and Kurnool, and which appear geologically to represent in the south the older portion of the great Vindhyan series. This area, containing many thousand square miles, being complete in itself, that is, being surrounded on all sides by rocks of totally different ages and different mineral characters, is treated as one.

In the Province of Bombay the examination of Kutch was completed in 1869, and an admirable map of the whole of Kutch, accompanied by a report embodying the latest researches, has been prepared by Mr. Wynne, who has now proceeded to the Punjab to take up the detailed examination of that Province, which offers to the geologist many points of great interest, as well as promise of valuable mineral products.

In Burmah, Mr. W. Theobald has completed the general examination of the Prome district up to the frontier of British Burmah, so far as that lies to the east of the Irrawaddy, and has now taken up the country lying to the west of the river in the same parallel

Publications.—The memoirs of the Geological Survey of India (vol. vii., pt. 1, published during the year, and written by Mr. Frederick Mallet) contain a full report on the area occupied in North-western India by the great series of rocks to which the name Vindhyan has been given. Stretching along the northern escarpments of the Nerbudda valley, passing across the district of Jubbulpur, and forming the whole of the Rewah country north of the Sone, this great series extends in a continuous mass far into Bengal, where the picturesque cliffs of the Rhotasgurh hills form its steeply scarped limits on the left bank of the Sone. Returning towards the west by Sasseram, Chunar, Mirzapur, and a little south of Allahabad, the boundary thence stretches in a great sweeping bay or curve to the south by Kirwee, Bijawur, and crossing the Beas river, trends again north to Gwalior and Agra and Futtipur Sikri, whence the line again trends to the south and extends to near Neemuch. The rocks belonging to this widely extended and important group constitute one of the most remarkable and interesting series in all India. They become also still more important to the Indian geologist when he finds representatives of the same great series covering immense areas in Madras, as already noticed, stretching northwards along the flanks of the Ghats and up the Godavery country, until in Berar and the adjoining part of the Nizam's dominions, and again in Bustar and Chutteesgurh, they constitute the rocky basis of very extended districts.

They are divided into several different groups, characterised by peculiar lithological distinctions, and throughout the whole area described present a wonderful constancy of mineral composition.

The "Records of the Geological Survey" are intended to convey a notice of the current work of the Survey, and the issues of the year containing manypers of great interest.

Attached to the department there are a library, a museum, and a fine collection of meteorites.

TRIGONOMETRICAL SURVEY.

Briefly summarised, the work of the Grand Trigonometrical Survey during 1868–69 comprises the measurement of a base line in the neighbourhood of Cape Comorin, of 72 principal triangles which cover an area of 6,508 square miles, and would if united form a chain of 320 miles in length, and of secondary triangles covering 6,615 square miles. Besides this, topographical surveys were carried out in Kattywar and Guzerat, and in the districts of Kumaon and Gurhwal. Much new

ground was traversed in Trans-Himalayan regions by natives under the direction of Major Montgomerie. Numerous astronomical, pendulum, and magnetic observations were taken, and many maps and charts were prepared and published.

The narrative of the journeys of the Pundits revives the interest which was felt on the announcement of the successful result of Captain Montgomerie's first experiment in 1867.

One of the Pundits employed by Major Montgomerie penetrated to Rudok, the capital of North-western Thibet, and found it to be situated about nine miles from the Pangong lake. Thence he advanced nearly due east over an elevated plateau 15,000 feet above the sea. The plain was of a dazzling whiteness, apparently due to some salt mixed with the soil, and it extended as far as the eye could reach. Throughout his route he passed numerous lakes producing salt and borax, and he heard minute descriptions of no less than seven separate gold-fields. The salt-fields appear to be the source from which the hill population from Nepal to Kashmir draws the greater part of their salt. Of borax there seems sufficient to supply the potteries of Staffordshire and all Europe if the supply from Tuscany should ever run short. The Pundit finally descended to Lake Mansarowar, of which he made a careful traverse with bearings to the peaks north and south.

Another explorer made a route survey of 1,190 miles in length; he managed to penetrate behind or north of the great Mount Everest peak.

The new routes explored during the year will, when combined with former explorations, add much to the elucidation of the Eastern Himalayas.

On the north-west frontier of India a Muhamedan gentleman has been employed for some time in exploring the countries beyond the Hindoo-Koosh, the Mustagh, and Karakorum ranges. Mirza was one of the lads brought from Herat by Pottinger, and has received a partial English education; he has kept up his acquaintance with that country, and, though for some time in the British service, has spent the greater part of his life there. He started viâ Affghanistan, and made his way to Candahar, where his progress was for a time arrested, owing to the war which resulted in reseating the Amir Shere Ali on the Cabul throne. Accompanying the Amir he witnessed various actions that took place during the Amir's advance from Candahar, and supplied our Government with accounts of them and the general state of affairs. Ultimately he was able to pass over to Badukshan, thence he ascended through the upper valley of the Oxus to Lieutenant Wood's Sirikul (or Victoria) lake. From this lake he made his way through a part of Sirikul district to Tashkurgan, crossing the watershed which divides the Oxus from Eastern Turkistan. From Tashkurgan he made his way over the mountains to Kashgur, where he was detained some time, and refused permission to go on to Kokhan. Ultimately he was glad to be allowed to return viâ Yarkund and the Karakoram pass to Ladak, and thence into British territory. His route from the Sirikul to Kashgur is entirely new, and may perhaps throw some light on Marco Polo's route from Europe to China, as that traveller stated that he went direct from Badukshan to Kashgur without passing through any larger town.

Expeditions are being organised to carry the explorations still further to the north of the Hindoo-Koosh, so as to account for the geography of the upper branches of the Oxus, of the Pamir Steppe, &c., projects which will probably be favoured by the present state of Affghanistan; and further routes will be directed in order to complete our knowledge of the geography of the Eastern Himalayas.

REVENUE SURVEY.

The Revenue Survey reports for 1868–69 show an area of 19,369 square miles surveyed during the year, at a total cost of 89,000*l.*, or at an average rate of 4*l.* 10*s.* 3*d.* per square mile.

In the Surveyor-General's office at Calcutta, in addition to the current work of compiling maps, many hundred copies of village plans were drawn for landholders and others.

Ten parties were employed in the upper circle, viz., four in the Central Provinces, one in Oude, two in the North-western Provinces, two in the Punjab, and one in Scinde.

In Oude 1,181 square miles were surveyed, leaving an area estimated at 1,500 square miles to complete the Province, of which about 1,100 were to come under survey in 1869-70. In the Punjab the Huzara district was completed, and is now ascertained to have an area of 2,975 square miles. Lieutenant-Colonel Johnstone, who conducted this survey, accompanied the Huzara field force in the expedition of October 1868, having previously determined the best routes to be taken by the

force to the west of the Black Mountain. During the three weeks that these operations lasted he reconnoitred and surveyed 400 square miles of hitherto unknown and unexplored ground, and made an important discovery respecting the true course of the Indus between Astoor and the Black Mountain, where in the published maps it is made to flow many miles too far south. Colonel Johnstone's work was almost entirely among the lofty mountains of Upper Huzara, among glaciers and masses of eternal snow, and stations were fixed on peaks which had hitherto boen pronounced impracticable.

It was hoped that the survey of Scinde, which was commenced in 1855–56, would be completed in 1869–70. During the year under review an area of 5,891 square miles, much of it desert, was surveyed on the plains of Omerkote, and in Thurr and Parker.

In the lower circle six parties were at work; five in the Lower Provinces, chiefly in the Kamroop and Luckimpore districts of Assam, and in Cooch Behar; and one in British Burmah. The most severe work fell to Lieutenant Barron, in Luckinpore, a district on the extreme north-east, embracing Sudya, and extending some sixty miles beyond it. Its boundary is as yet undefined, but its estimated area is 11,600 square miles. He had the densest jungles to cut through, and was almost wholly dependent upon imported labour. This officer strongly recommends that the British boundary line should be fixed, and that within that boundary we should insist on the inhabitants living at peace with each other. At present the Naga and other tribes claim a sort of independence, and carry on petty wars with each other within the ostensible boundary line, the influence of our rule in some directions seeming hardly to extend beyond our outposts.

Topographical Survey.

The object of the Topographical Survey, briefly stated, is to obtain fairly reliable maps on a moderate scale (one inch to the mile), and at a small cost, of wild, hilly, and unremunerative non-regulation districts within British jurisdiction, as well as of Native States, for purposes of administration, civil and military, and to obtain geographical information on a reliable basis, for the sheets of the great Indian Atlas, of vast tracts of country, which under any more expensive and elaborate system would take upwards of a century to complete.

The surveys of the year were conducted by seven parties, three of whom were occupied in the Central India and Rajpootana agencies; two in the Central Provinces and the Vizagatam agency of the Province of Madras; and two in the Lower Provinces of Bengal. Of nearly all the ground allotted to these survey parties no reliable maps exist, and in some cases the tracts have been rarely visited by Europeans.

Area of survey and cost.

During the season of 1868–69 the final survey of 16,801 square miles was completed by the seven parties, at a total cost of 36,860*l.*, or 2*l.* 3*s.* 10½*d.* per square mile. Compared with 1867–68 these figures show a falling off of 3,400 square miles in the amount of work, and an increase of nearly 8*s.* per square mile in the cost of survey, results which are entirely due to the scarcity and dearness of food throughout the country, which made it necessary to curtail field operations by two months, and to increase the wages of the native employés. On the other hand, there is a large increase in the area triangulated in advance of details as a basis for future plane tabling, and a marked improvement in the number of points fixed by the triangulation and the number of elevations determined, both of which elements are of great importance.

Mapping.

The total out-turn of fair mapping by the seven surveys represents an area of 18,265 square miles reduced to one-inch and half-inch scales, besides 20,901 square miles of exaggerated mapping intended for reduction by photography and subsequent transfer to zinc by the carbon process. This work is reported to be exceedingly good, and to have kept every one employed to the latest day of the recess.

The Surveyor-General has directed his attention to the absence of any contribution whatever to the geography of the northern portion of the Province of Bombay during the last 40 years, and will take the earliest opportunity of supplying the blanks which have prevented the publication of several sheets of the great Atlas of India.

Summing up the work accomplished by the department, he states that during the last quarter of a century the enormous area of nearly 600,000 square miles has been surveyed, an area nearly five times as large as that of the whole of the British islands, more than twice and a half larger than that of France, upwards of five times the area of Prussia, more than double that of Austria, and three times

that of Spain. "The survey of India is a national task worthy of comparison with "similar undertakings in other European countries."

The journals of the surveying officers contain much valuable and interesting information on the geography, ethnology, &c. of the districts visited by them.

ARCHÆOLOGY. The archæological remains of India may be divided into four classes: architecture, sculpture, coins, and inscriptions.

Architecture. Architecture is naturally divided into the two great classes of Hindu and Muhammedan, which are widely distinct from each other. The former may be subdivided into the three distinct classes of Buddhist, Jain, and Brahman, corresponding to the three distinct religious beliefs which prevailed in ancient India.

Buddhist.—The Buddhist architecture consists of caves, topes, monasteries, temples, and pillars. As the earliest specimens of Hindu architecture the greatest interest attaches to the examples of this style, of which few now exist. Notable among Buddhist remains are the caves of Ellora and Ajanta, near Bombay, and the Sanchi Tope, near Bhilsa, in Central India.

Jain.—The principal Jain works are in Rajpootana, Gwalior, and Bundelcund. Though not so numerous as those of the Brahmans, they are equally important from their extreme richness and variety.

Brahman.—The Brahmanical style extended over a very long period. The early structures are few in number; those of later date are very numerous: but it is in most cases difficult to arrive at more than an approximate determination of their age.

The Muhammedan architecture, distinct only in style, may be broadly divided into Pathan and Mogul, but these again possessed diverse styles at different periods, so that Muhammedan architecture may be classed under the following five heads:—

	A.D.	A.D.
1. *Early Pathan*, of the Ghori and Khilji dynasties -	1193	to 1321
2. *Late Pathan*, of the Tughlak and Sayid dynasties -	1321	to 1451
3. *Affghân*, of the Lodi and Suri dynasties - -	1451	to 1554
4. *Early Mogul*, from Humâyun's restoration to Shah Jehan's death - - - - -	1554	to 1658
5. *Late Mogul*, from Shah Jehan's death to accession of Alam Shah - - - - - -	1658	to 1759

The great difference between the Pathan and the later Mogul architecture, as great as that existing between early Norman and perpendicular, is evident by comparing the majestic beauty of the Kutb Minar (A.D. 1200) and the stern grandeur of the fort of Tughlakabad (A.D. 1321) with the chaste elegance of the tomb of Taj-Mahal at Agra, built A.D. 1630 and the graceful lightness of Aurangzib's mosque at Rosa, Delhi, A.D. 1677.

Sculpture. The Muhammedan religion forbidding the representation of anything living, either man or animal, the sculpture of India is limited to the Hindus, and, like the architecture or the same people, is divided into the three distinct classes, Buddhist, Jain, and Brahmanical.

The Buddhist sculptures consist of bas-reliefs and detached statues. The first are valuable as illustrating the dress and occupations of the people, as well as their buildings, &c.; while the sculptures are important from their unconstrained style and superior finish, due in all probability to the influence of Greek art.

The Jain sculptures are restricted almost entirely to the representation of the 24 hierarchs of their faith, to each of whom a symbol is attached, generally some animal, fish, or flower; in one instance a crescent, in another a thunderbolt.

The Brahmanical sculptures are almost countless, and are generally representations of the Brahmanical divinities.

Only two specimens of Muhammedan sculpture are known to exist. They were lost sight of for some time, but came to light after the Mutiny, having been buried.

Coins. The coins now in the India Office form the nucleus of an Oriental collection, and for the history of India are invaluable. General Cunningham is of opinion that the collection should be confined to Oriental coins alone, in which he would include the Syrian, Parthian, and Sassanian series in ancient times, and the Muhammedan coinages of Ghazni and Persia in modern times; these being all intimately con-

nected with the coinages of India, many of which are simple copies of the money of their western neighbours. For the full illustration of Indian history each series should be complete. This object could be only accomplished gradually; it would no doubt be accelerated by the gifts of Indian officers, and by exchanges with other museums; and the expense, which would not be great, would be spread over a number of years.

Coins are the only *continuous* historical records which India possesses of its early history. By comparing the collections gathered at different places it will be possible to determine with some precision the extreme limits of the Greek and Indo-Scythian conquests, and to define the boundaries of the various kingdoms of ancient India.

Inscriptions.

A collection of the inscriptions that exist throughout the country on rocks, pillars, caves, and copper-plates, will illustrate the various styles of writing which have prevailed in different ages in India. Copper-plate grants might be obtained in original; of the more remarkable records on stone, casts should be taken; while for all the purposes of reference, paper impressions of the greater number would be sufficient.

Architectural ornament.

Lastly, there are two kinds of architectural decoration peculiar to Muhammedan buildings which deserve attention, viz., the use of glazed tiles of various colours, and of inlaid marbles or mosaics.

The glazed tiles were most probably introduced from China; they are somewhat similar to Dutch tiles, and they have withstood for many centuries the climate of India. The art is now confined to Scinde and Mooltan, but both in design and variety of colour the work of the present day is inferior to that of the past.

The mosaics of India are of two kinds, which may be called the black ground and the white ground, according to the colours of the material in which the mosaic pattern is worked. The first are found only at Delhi, they are similar to the Florentine mosaics, and are thought to have been introduced by Austin of Bordeaux, a jeweller who was much employed by Shah Jehan. The mosaics on a white ground are found in various buildings at Lahore, Delhi, and Agra, the Taj Mahal and the palace of Shah Jehan at the last place containing the most numerous and the finest specimens. In trays, tables, and fancy work the white-ground mosaics are well known in England; but the Indian black-ground mosaics are almost unknown in Europe, and as they are fast disappearing from the Delhi Palace, it is very desirable that some specimens should be secured before it is too late.

It is the desire of the Government to preserve all these remains of Indian archæology, and as far as possible to diffuse throughout Europe and India an intelligent acquaintance with them. By means of photography a very large number of objects of beauty and interest have already been revealed to those who have no opportunity of visiting the originals, and although much has yet to be done, the time is not far distant when it will be possible to make a *selection* of illustrations, accompanied by ground plans and drawings and full verbal information, in which the whole will be classified, so as to show succinctly the various styles and periods of Indian architecture. Where, as in the instance of the Taj Mahal, colour is introduced in the form of inlaid marbles or mosaics, fresco paintings, &c., photography must be supplemented by coloured drawings. To show the admirable harmony of design of many Indian structures, it is indispensable that of such there should be constructed models to scale; a species of handiwork for which the natives of India possess a special aptitude, probably unequalled in any country. Lastly, in order properly to display the minute details of architectural ornament, moulds and casts must in many cases be executed, and already, with the consent of the Committee of Council on Education, an officer with a certain number of trained subordinates has been deputed to take a plaster cast of one of the gateways of the Sanchi Tope, one of the most ancient as well as perhaps one of the most interesting relics of Indian archæology.

It was in September 1867 that the attention of the local Governments was directed by the late Governor-General to the importance of preserving, and revealing to the world, the examples of ancient art scattered throughout the country. In a recent despatch the Secretary of State suggested that, the praiseworthy exertions of individuals, many of them civil and military officers occupied by serious public duties, having to a certain extent mapped out the field of research, the time had now arrived for instituting a regular archæological survey

of India, to be carried out in a systematic manner; and he recommended that the supervision of the whole should be concentrated in one department, and not left, without control, to different chiefs under different local Governments.

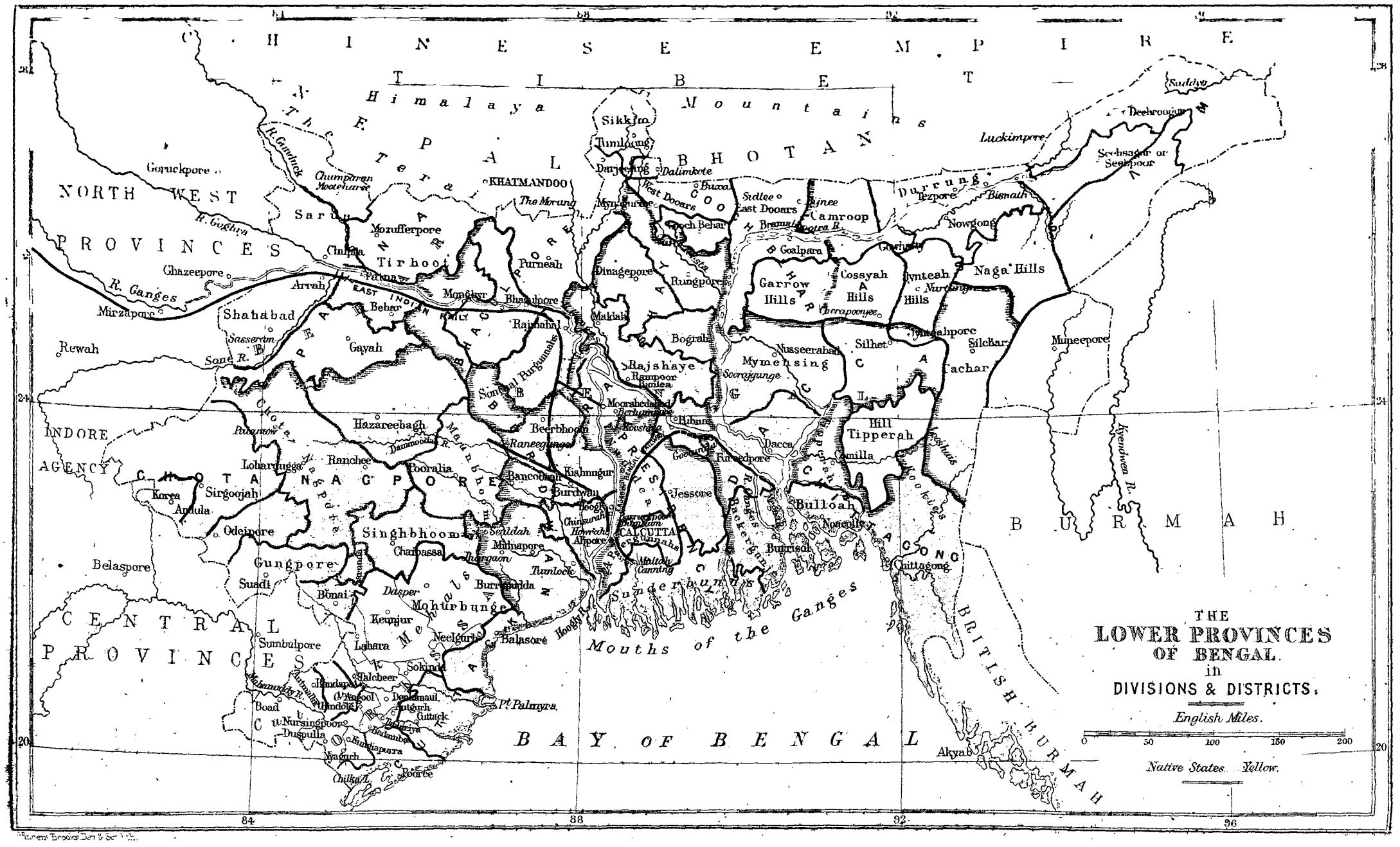
In all that relates to this subject the Government are aided by the advice of many who have made it a life study, notably by General Cunningham, formerly Archæologist to the Government of India; by Mr. James Fergusson, the learned author of the recently published work on "Tree and Serpent Worship;" and by Colonel Meadows Taylor, who has specially devoted himself to a study of the pre-historic archæology of the country.

SANSKRIT LITERATURE.

From Bombay come the reports of Professors Bühler and Kielhorn, who in the early part of 1869 proceeded through the Presidency in search of Sanskrit MSS., one taking the Northern, the other the Southern Division. The operations of the year convinced Dr. Bühler that Gujarat is exceedingly rich in Sanskrit libraries and books, and that with patience and care a good many valuable works may be obtained. Visiting the principal seats of Sanskrit learning, he had interviews with the native scholars and possessors of libraries, who met him in the most friendly manner, showed him lists of their books, and brought those he wanted to inspect. At Balsar he held a regular Sabhá, or assembly of the learned, for the purpose of learned discussion, where he examined the pupils, proposed a few questions to the teachers, and finally addressed them on the object pursued by Europeans in studying Sanskrit, the intentions of Government in regard to the cultivation of that language, the purpose for which Sanskrit books are collected, &c. All these topics appeared to have great interest for them, as they listened eagerly and frequently asked questions demanding fuller explanations, and the Pundits were deeply impressed by seeing a foreigner able to converse in their sacred language, and acquainted with their Shastras.

The results of Dr. Bühler's operations are the catalogues, prepared on a prescribed plan, of a number of libraries, and the acquisition of a number of old books and copies; selections from the former are now being prepared for publication. They bring to light a great many Vedic MSS., rare as well as common, and a few books also, of which up to this time no copies had been obtainable.

Dr. Kielhorn expresses himself as, on the whole, satisfied with the results of his tour in the acquisition of MSS. and the preparation of lists. He thinks he may state with confidence that only few books that are not yet known to European scholars are to be found in the Southern Mahratta country. There are very few old libraries in this part of the Presidency, and most of the Sanskrit learning has, so far as he is able to judge at present, been imported from the north of India within the last two centuries. Dr. Kielhorn regrets that among the Shastris with whom he endeavoured to become acquainted were few really good scholars. The race of the old profound scholars is evidently dying out, and he looks forward with deep regret and serious apprehension to the days when the class of the old Shastris will be extinct. The philosophical literature of India comprises many difficult works, written in a method which requires not only that they should be read, but that their concise sentences should be explained by a full oral instruction. Many of these works are almost unintelligible without the help of the tradition embodied in, and kept up by, the Shastris; tradition that being merely oral is likely to die with the generation. To remedy this the native scholars propose the reinstitution by Government of the old Sanskrit schools, in which nothing but Sanskrit was studied. But the time of these schools has gone by, Dr. Kielhorn says; and from a careful examination of the grammar and logic schools at Sanglee, he is convinced that Sanskrit learning can derive only few benefits from the existence of those and similar establishments. In order to guard against its total loss, the traditional explanation of the scientific literature of India ought to be fixed in writing, and it occurs to him that part of the magnificent sum which Government has assigned to the preservation of Sanskrit literature might be expended in encouraging young native scholars to collect and publish as much of this traditional learning as they can gather from the best Shastris.



RETURN—EAST INDIA (PROGRESS AND CONDITION).

The Lower Provinces.

The Lower Provinces.

The territory under the control of the Lieutenant-Governor of Bengal, Clive's great conquest, which gave stability to the position of the British in India, is by far the largest and most important of the divisions into which, for administrative purposes, British India has been parcelled out. It has an area of 240,000 square miles, and a population of 40 millions. France has an area of 207,000 square miles, and a population numbering about 38 millions.

Bengal proper, the centre round which the other territorial divisions are arranged in a semicircle, occupies the large tract of alluvial soil, intersected by the Ganges and Brahmapootra and their numerous effluents forming a large delta. Moorshedabad, the capital of the former rulers of Bengal, and Dacca, though it possesses a college, and though it has not lost its reputation for producing the most beautiful muslin and the finest gold and silver work, have both sunk into comparative insignificance before the present capital, Calcutta. West and south-west of this principal province lies the large tract of Orissa and the Tributary Mehals, which, ill-watered and difficult of access, suffered so terribly on the failure of its natural resources in 1866. North-west of it, bounded by the North-west Provinces on the west and on the north by Nepal, extends the rich province of Behar with its capital Patna, the great opium emporium of Bengal, where the juice collected from the surrounding country by the cultivators is brought to undergo preparation in the Government manufactories. Between Behar and Orissa is a large tract of country, with an area close on that of England, called the South-west Frontier, a name that has long lost its fitness. It is "for the most part a wild "and mountainous country, clothed with forests, and inhabited chiefly by the "aboriginal races of India." North-east of Bengal is Assam, which contains an area of 30,000 square miles, extending for at least 300 miles to a short distance beyond Sudiya, where exploration ends. It is bounded on the north by Bhootan and unsettled hill tribes; on the south by the Burman Empire and by the little state of Muneepoor, which though under British control can hardly be considered a part of British India, and seems as if it should form an integral part of Burmah. South of Tipperah and occupying 150 miles of the coast as far as the northern boundary of British Burmah, is the British district of Chittagong, which like the South-west Frontier abounds in hill tracts, and is chiefly inhabited by aboriginal races. Mention should not be omitted of the Garrow and Cossiah hills, which lying in the bend made by the Brahmapootra, form a parallelogram of highlands of a very remarkable formation of red and white granite, overlying similarly coloured clays and sand. The district is under Government supervision, and is inhabited by hill tribes. Fifty miles to the north-west of it on the opposite side of the river is the dependent native state of Cooch-Behar.

Civil Divisions.

Having thus briefly passed in review the natural divisions of the Bengal Presidency, or as it would be more fitly called the Government of the Lower Provinces, we proceed to speak of its administrative distribution. The province contains eight *regulation* divisions, as given in the margin, whose names are in nearly every instance taken from the chief town of the division, which is always the head-quarters of the governing staff. These eight divisions or commissionerships are each under a Commissioner, and they are subdivided into 36 districts, each of which is under an officer styled magistrate and collector. The *non-regulation* districts, each under the management of a deputy commissioner, are 19 in number; they are grouped in six divisions, which form three commissionerships.

Regulation.		Non-regulation.	
Bhaugulpore	Division	Assam	Division
Patna	„	Cooch Behar	„
Rajshaye	„	Chota Nagpore	„
Chittagong	„	Dacca	„
Presidency	„	Bhaugulpore	„
Burdwan	„	Chittagong	„
Dacca	„		
Orissa	„		

The total number of subdivisions in the Regulation Provinces is 76, and in the Non-regulation Provinces 22.

The staff of officers who were employed in the Lower Provinces on the 31st March 1869, in the administration of justice and in ordinary duties connected with land revenue numbered 761. This does not include the police nor the officers employed in the special departments, such as salt, customs, opium, income tax, registration, &c.

Judicial. High Court; original side.

Civil Justice.—On the original side of the High Court there were 413 cases pending from 1867, and 944 were instituted during 1868. Of the total number

THE LOWER PROVINCES.

897 were disposed of, and 460 remained on the file. On the appellate side 4,180 were instituted against 4,554 in 1868, a decrease corresponding with the number of appellable cases, being 18,936 instead of 20,895; 5,063 appeals were disposed of, and 2,130 were pending at the close of the year, showing an increase of 1,434 in the first case, and a decrease of 883 in the second compared with 1867. The value of property under litigation increased from 891,000*l.* to 1,217,000*l.*

High Court; appellate side.

Mofussil Courts.

The number of cases original and appellate that came before the Courts of the Mofussil other than Courts of Small Causes, was 141,684 against 148,496 in 1867, and there was a proportionate reduction of cases pending at the close of the year from 21,654 to 20,547.

Value of suits.

The total value of suits decided during the year and of those pending at the close of it was 5,360,000*l.*

Stamp fees.

The net revenue realised by stamp fees was 234,718*l.*, which was an increase of 8,430*l.* compared with 1867–68.

Cost of Civil Courts.

The cost of the Civil Courts was 250,640*l.*, or 25,922*l.* in excess of the income from stamp fees.

Characteristics of litigation.

With regard to the characteristics of the litigation the statistics show that by far the largest proportion of the original suits, in fact more than 69 per cent., were for money claimed on bond or contract; boundary suits, 9 per cent., are next in the scale, and as usual particular classes of cases predominated in particular districts.

Results of original suits.

73 per cent. of the original suits decided were in favour of plaintiffs, 26 per cent. in favour of defendants, showing that the results of the year were 1 per cent. more favourable to plaintiffs and less favourable to defendants than in 1867–68.

Calcutta Court of Small Causes.

31,679 suits were instituted in the Calcutta Small Cause Court against 30,214, and the value of the property under litigation was 169,000*l.* against 164,000*l.* The average number of suits for each day was 125.

Of the number set down for hearing (32,718) 13,376 were decided in favour of plaintiffs, 1,562 in favour of defendants, 1,070 remained undecided against 1,039 in 1867–68, and the rest were otherwise disposed of.

Mofussil Small Cause Courts.

During the year 21 judges of Courts of Small Causes held their sittings in 34 places. The total number of suits was 38,045, of which 36,362 were instituted during the year and 1,683 remained over from 1867. At the close of 1868, 35,738 had been disposed of, and 2,307 were pending. 65 per cent. of the decisions were in favour of the plaintiffs.

The cost of the Small Cause Courts was 26,477*l.*, while the net income from stamps was 22,855*l.*

High Court.

Criminal Justice.—A smaller number of cases came before both the original and appellate sides of the High Court in 1868 than in 1867.

—	1867.	1868.
Original - -	359	294
Appellate - -	1,510	1,296

Original side.

There were committed to and tried by the High Court in its original jurisdiction 294 persons, of whom 207 were convicted. In 1867 the numbers were 359 and 252.

Appellate side.

1,296 criminal appeals came before the Court, against 1,510 in 1867. 76 cases were for confirmation of the sentence of death, and of the 103 persons involved sentence was confirmed in regard to 54, 13 persons were acquitted, 33 had their sentence commuted to transportation for life.

Courts of Session.

1,897 cases come before the Courts of Session in their original, and 4,663 in their appellate, jurisdiction. Of the total number of persons (2,424) there were 223 sentenced to transportation or imprisonment for life and 96 received sentence of death against 105 in 1867.

Courts of magistrates.

The most important facts connected with the cases brought before the Criminal Courts of the various magistrates of Lower Bengal are given in the margin and show a decrease of crime compared with 1867. The per-centage of persons convicted and committed to those under trial was 54. Of the total number convicted 46,500 were fined, 21,383 received various terms of imprisonment, and 2,083 persons were punished by whipping.

Cases - - -	78,263
Persons under trial	142,748
Convicted -	74,674
Committed - -	3,906
Released - -	59,834

POLICE.

The police establishments in Bengal are now of five kinds. (1.) The regular district police, whose number, including all ranks, is 25,910, whose annual cost is 419,000*l.*, and whose employment is the protection of the frontier, the road and river patrols, and the salt preventive establishment. (2.) The municipal police, numbering 6,322, and maintained at an annual cost of 48,500*l.* This newly

organised force has worked well in the larger towns where there is proper supervision, but not equally so in the smaller towns and unions. (3.) The railway police who number 692. Their total cost, 11,700*l.*, is defrayed one-fourth by the Government; the balance by the railway company. They are of great use and their relations with the railway officials are satisfactory. (4.) The village police. They number 188,223 chowkeedars, who received during the year 361,785*l.* in payment of their services. This expense does not fall on Government, but is discharged by the inhabitants, zemindars, and from other local sources. A committee has been appointed to consider the unsatisfactory position of this useful but ill-paid body of men and its entire re-organisation. (5.) The special or detective police, including the establishment for the detection of opium smuggling.

The total number of police, regular and irregular, in the year 1868 was 219,737, and their total cost was about 850,000*l.*, of which about two-thirds were paid from imperial funds.

The question of separating the police force into two distinct branches, military and civil, which was under consideration last year, has been decided in the negative as uncalled for. In some divisions the work of the police is almost entirely civil; in others as in the Chittagong and the Naga hills it consists as entirely in the defence of frontier posts; in others again, though their duties are pretty equally civil and military, an absolute division of the force into two branches was not recommended, and a greater attention to drill especially is all that is considered necessary.

With regard to the arming of the force. Putting the men of the regular police and some of the town police, excluding the superior grades, at 27,500, fire-arms were provided for 9,733 men, swords for 1,957, and batons for 23,795.

The total number of criminal cases under trial in the Criminal Courts was 114,945 against 107,749 in 1867, giving an increase of 7,196 cases; but the percentage of convictions was only 51·8 on the number brought to trial against 52·4 in the previous year. 23,759 cases were brought to trial in Calcutta.

The table of heinous offences shows an increase in the number of murders from 420 to 445, and a considerable increase under most of the other heads.

In the year under review the stringent enforcement of the Arms Acts of 1857 and 1860 was relaxed in certain districts where it was reported to be unnecessary to insist on the people taking out licences to own or carry arms; but in others such as the Assam, Cooch-Behar, and Chittagong divisions, magistrates are still required to carry out this rule, to refuse to grant licences where there is good ground for so doing, and to adopt strict measures for disarming those who attempt to carry arms without a licence; the reasons being that in some of these districts situated on the frontier, the unrestricted right of possessing and carrying arms was found to afford facilities for selling them to the hostile tribes on the border; while in others the people are so turbulent and prone to engage in affrays and riots that it is necessary to put a check on the possession of arms by them. Similar limitations were imposed on the importation of arms in large quantities.

MUNICIPAL. Calcutta municipality.

The income of the Calcutta municipality from all sources in 1868 was 282,500*l.*, and the expenditure 265,500*l.* The number of licences taken out for trades and professions followed in the city was 24,360. At the close of the year there were 2,600 lamps lighted by gas, and 650 by oil, making an aggregate of 3,250 against 2,396 in the previous year. The registration of births and deaths though improved cannot be said to be efficient.

The Calcutta Municipal Act came into operation on the 1st July 1863. The total amount received during the past five years and a half has been 1,422,200*l.*, while the expenditure has been 1,373,168*l.*

Mofussil municipalities.

In the 24 municipal towns of the mofussil the income for the year was 57,936*l.*, and the balance from 1867 was 15,400*l.* Of the total 73,300*l.* the sum of 18,250*l.* was spent on police, 37,260*l.* on municipal works, and the balance at the close of the year was about 18,000*l.*

PRISONS.

The number of prisoners in custody during the year, including 18,570 remaining from 1867, was 83,405, against 89,120 in 1867, a decrease which is attributable to the influence of the famine of 1866 having passed away. The number of admissions (64,835) was 2,202 less than in 1867.

Mortality.

The total number of deaths was 988 against 1,187 in 1867, and the per-centage on the daily average number of prisoners in custody was 5·05 against 5·88, a smaller rate than has been attained in 22 years.

Education.

Of the 64,835 prisoners admitted during the year 604 were fairly educated, 5,277 could only read and write, and 58,954 were entirely ignorant.

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The daily average of prisoners sentenced to labour in 1868 was 16,671, of whom 55·16 per cent. were employed on remunerative handicrafts; 2·53 in the Alipore Gaol Press, 15·49 as gaol servants, guards, &c., while 16·36 were unemployed.

The gross receipts from the labours of prisoners employed on manufactures was 61,200*l.* in 1868 against 56,500*l.* in 1867, and deducting charges the net profits were 22,200*l.* against 19,460*l.*, with an outlay of 7,300*l.* The work of the Alipore Gaol Press gave a net return of 47,000*l.*, and a net profit of 33,000*l.*, which, divided among the prisoners, gives an average amount of earnings per man of more than 77*l.*

The gross cost of the maintenance of the prisoners was 138,385*l.*, and the net cost 81,567*l.*, which gives an average of 4*l.* 4*s.* 10*d.* per man on a daily average of 19,227 criminal persons.

Gaols placed in charge of medical officers.

In order to relieve the magistrates of districts of a portion of their heavy and important duties the charge of gaols in Bengal has been recently placed under the civil medical officers, who, as a rule, have sufficient time for the duty, and are more experienced than the young judicial officers to whose charge gaols were usually committed, and are besides better fitted by education to deal with questions of gaol sanitation.

Port Blair. (See page 65.)

The large number of convicts at Port Blair (7,000), and its inability to accommodate more, made it necessary for the Government of India to issue an order that for the future from no part of India should convicts be sent to the Andamans except those under sentence of transportation for life, and to suggest what has been carried out, that certain gaols should be declared places of transportation for prisoners under lighter sentences of penal servitude.

Classification of prisoners.

The Lieutenant Governor is of opinion that even with the present defective construction of the gaols in the Lower Provinces a better system of classification of prisoners is possible. The superintendent of the Alipore gaol in reporting on the same subject admitted that classification according to crime would somewhat interfere with the economical employment of prisoners, and perhaps also with their moral reformation, as, in his opinion, crime and sentence were very untrustworthy standards by which to gauge the turpitude of offenders, the murderer being frequently found the least morally depraved; but he suggested a modified system of graduated classification, rising in stages from confinement in separate cells to intermediate imprisonment, each stage to be earned by good conduct.

There being a smaller demand for articles of gaol manufacture, attention has been drawn to the success of the artisan school at Raipore, and Dr. Mouat has been directed not to lose sight of the fact that local circumstances may often indicate a more profitable means of employing prison labour, though the comprehensive scheme of prison industry sketched out by him cannot be carried out in its integrity until the central gaols are constructed.

As a proof of the change that has come over gaol discipline of late years, in 1835 the only labour in which the prisoners in the Alipore gaol could be employed yielded an annual profit of 250*l.*, while the discipline of the prison was so bad that an attempt to direct the labour of the prisoners to more useful purposes was followed by the murder of the magistrate. In 1868, 33 years afterwards, there were 2,000 prisoners in this same gaol, and the management was so judicious that there are very few breaches of discipline among them, and their gross earnings during the year were 25,000*l.*

MISCELLANEOUS.

In October 1868 it was reported to Government that the disputes between the planters and ryots in the indigo districts of Chumparun and Tirhoot were becoming serious, the ryots being apparently determined not to carry out their contracts to sow indigo, conduct that would result in heavy loss to the factories, and eventual ruin to themselves. The difficulty was met by the establishment of a small cause court in the district for the immediate settlement of suits for breach of contract; and the conduct of Mr. Bell the president, who by meeting the ryots out of court, and explaining to them their exact position as to rights and liabilities, led to the adjustment of many differences without recourse to litigation. The demands of the ryots were met by concessions from the planters, whose bearing is stated to have been most moderate and temperate.

The local officers almost unanimously reported that the cultivation of indigo had become very unpopular, and that there was not a ryot who would not abandon the cultivation if he could; and this state of things was ascribed to the insufficiency

of the remuneration which the ryots received, and to the exactions, oppression, and annoyance to which they were exposed at the hands of the factory servants. It was clear to the Government that in the altered circumstances of the present time the planters must be prepared either to close their factories or to give the ryots in some shape or other a remuneration which should make it worth their while to grow indigo, and the position was realised by the planters, who raised the rate of remuneration from 15*s.* to 24*s.* per beegah. Beyond providing prompt means of justice Government action was confined to throwing the weight of the influence of its officers on both sides to induce them to abstain from what was obviously indefensible, and to concede what was obviously right. THE LOWER PROVINCES.

Government were made aware that an active movement of some kind was taking place among the Mahomedans of the Wahabee sect in several districts of the Lower Province. Enquiry led to the discovery that this movement is extensively ramified, that there are agents stationed in different and distant parts of the country, and that a jehad or religious war against the British power has for some time been preached, and collections in aid of the Hindoostani fanatics on the north-west frontier made on a regularly organised system. The investigation is still being steadily carried on by the detective department. Pending the result the leading preachers of sedition and the more active collecting agents, as well as all suspicious foreign emissaries from the north-west are detained in custody, and the final action of Government in the matter is undetermined. The Wahabees.

In November 1868 the Secretary of State called for a report on the prevailing practice in regard to the execution of processes of British courts within the limits of the French factories in the Lower Provinces. An examination of old records and the inquiries of the local authorities, brought to light the following facts; that the French possessions in these provinces, which were restored to France by the treaty of 1814, were Chandernagore and the five *loges* or factories of Patna, Dacca, Balasore, Bassimbazar, and Jougdia; that the settlement of Chandernagore is treated as the territory of a foreign power, where the British courts have no jurisdiction, and where their processes cannot be served except through the Governor of the settlement; that the *loges* are no longer in existence, but that the site occupied by one of them in Balasore has come erroneously to be regarded as the territory of a foreign power; the Government of India in 1819 drew a distinction between territorial possessions and mere commercial factories, and held that it was never intended by the contracting parties to the convention of 1815 to confer on the French factories privileges which had not been admitted in favour of the European powers. Departure from this ruling, however, has given rise to much inconvenience, to remove which the only way seems to be to press upon the French Government an interchange of territory, by which all their possessions in this country should be consolidated at Pondicherry and Karikal.

The Secretary of State early in 1868, having called for an expression of opinion on the part of the Government of India, as to the expediency of creating a distinct judicial branch of the Civil Service, the members of which should be trained specially for the duties of the Bench, and should not look for advancement beyond the sphere of these duties, officers of experience and distinction were consulted on the subject, and their reports were under consideration at the close of the year. Distinct judicial branch of Civil Service.

To prevent the recurrence of occasional cases of destitution brought to notice by the Secretary of State, as for example, when some conjurors, natives of India, were engaged by Europeans for service in Europe, and subsequently abandoned in the streets of London, the collector of customs has been directed to assist such persons when entering into engagements to secure a satisfactory arrangement for their return passage.

Ten Acts were passed during the year by the Council of the Lieutenant-Governor for making laws and regulations, and received the assent of the Governor-General. They possess local importance only, except perhaps Act I. of 1869, for the prevention of cruelty to animals. Legislature.

The small native state of Cooch-Behar, whose affairs are carried on under the supervision of a deputy commissioner, has an area of 1,287 square miles. Its revenue from all sources was 81,529*l.*, and its expenditure 68,995*l.* The Rajah, who is seven years old, is being educated at the Wards' Institute, Benares. POLITICAL. Cooch-Behar.

The newly acquired lands of the Bootan Dooars have been withdrawn from the jurisdiction of the High Court, and a set of rules have been framed for the guidance of local officers in the treatment of questions of settlement, revenue, and Bootan.

THE LOWER PROVINCES.

rent. It was felt that such a court was unable to look at motives of policy or expediency, and was unsuited to decide questions of settlement in a newly acquired and rude country. An agent deputed by the Bootan Government will reside in British territory and represent that Government permanently, and in consideration of the poverty of the State it has been considered right that he should receive an allowance from our Government.

Outbreak in Keonghur.

In Keonghur, one of the states of the Tributary Mehals of Cuttack, there was an outbreak of a serious character. It was hoped that the disturbances which ensued on the accession of the young Rajah Dhunûnjay, had been terminated at the commencement of 1868 by the renouncement of rival claims and his recognition by the hill tribes; but scarcely three months later, on the 28th April, this fresh outbreak was reported, having it is supposed, originated in some impolitic action of the minister, and been fomented by the hostile Ranee. Dr. Hayes, who was acquainted with the people and had some influence over them, on entering to Keonghur, found the whole country in arms, the insurgents, 20,000 in number, had disarmed the constables and dismounted the guns, and the wild clans, Juangas and Koles, uniting with the Bhoojas and other clans, increased the general confusion with their plundering parties. It was found necessary to move up 800 native troops and police, and it was not till the end of August, after considerable skirmishing, that the country was pacified and the affair quashed by the execution of four of the ringleaders and the transportation of many of their associates. Reports up to the close of the year show that with the aid of the civil officers left in charge and a small force of police, the Rajah was becoming reconciled with the disaffected tribes.

Naga hills.

During the year 3,000 Nagas took passes to go down to the plains to trade, and not one of them committed any sort of offence; it was expected that a large number would apply for passes the following year with the same peaceful intentions. With the Kookies in the North Cachar our relations were also satisfactory.

Nothing has yet been done for the education of the Nagas, but with the aid of the Bishop of Calcutta, who is interested in the people, it is expected that missionary schools will soon be introduced into the hills.

Looshais.

Our eastern frontier bordering on Sylhet and Cachar has since 1862 been singularly free from the incursions of the savage Looshai and Kookie tribes inhabiting the wild track of country bordered by the independent states of Tipperah on the west and Munipore on the north-east.

At the close of December 1868, however, a sudden attack was made, commencing with a descent on the Tipperah Rajah's territory by a party of Looshais, who then advanced into Sylhet, burned and plundered a village, killed several people, and disappeared as suddenly as they came. While preparations were going on for preventing the repetition of such an attack, on the morning of the 10th January, and again on the 14th, a raid was made by another party of Looshais on the tea plantations in Cachar, in which, as on the previous occasion, the buildings were sacked and burnt down, several of the coolies, men, women, and children, were killed, and some were carried off. The police at the outposts, though outnumbered, behaved well, and succeeded in driving back the savages. The outposts were then strengthened for the protection of other outlying gardens, and two regiments of Native Infantry with a few guns advanced into the country of the raiders with orders to attack none but the actual offenders; to bring operations to an end before the early rains, and on no account to do anything that would involve operations again in the next year. The expedition terminated about the end of March, having been but partially successful.

Chittagong hill tracts.

Several raids were made early in 1869 by hostile border tribes on villages within the limits of the Chittagong hill tracts, but as it was impossible to reach the aggressors except by a very expensive expedition, which the requirements of the case did not seem to require, they remained unpunished.

At the suggestion of the Lieutenant-Governor a fair was held at Kassalong; its complete success was marred by an outbreak of cholera which kept the Kookies away, but the few who attended were so pleased with the arrangements made that it is fair to anticipate a large attendance on the next occasion.

An attempt to induce the hillmen to abandon the present mode of cultivation by jooming in favour of ploughing failed. They could not be prevailed upon to adopt a new mode of tillage.

The collections of hill revenue amounted for the year to 2,476*l.*, the expenditure to 12,682*l.*, of which more than 8,000*l.* went to the maintenance of police.

At the conclusion of this chapter will be found an abstract from a report on the hill tracts of Chittagong by Lieutenant Lewin. THE LOWER PROVINCES.

The area of the Garrow hills is about 3,300 square miles. The revenue of the district is rather more than 1,200*l.* a year. Garrow hills.

The number of emigrants despatched to the colonies in 1868-69 was 10,274 against 5,154 in the year before; 5,014 of them went to British Guiana, the rest to Mauritius, Trinidad, Jamaica, and St. Vincent, the number that went to Mauritius being nearly four times as great as in 1867-68. The number who returned to India was 1,700. Emigration.

12,509 coolies, including men, women, and children, were transported to Assam, Cachar, and Sylhet. In nearly all the plantations of these districts owing to increased care of them on the part of the planters, and to improved drainage and house accommodation, the mortality was less than in past years, and the fact that 15,000 time-expired coolies remain in the gardens of Cachar without agreements or with only civil agreements proves that they are well treated, and that their wants are attended to.

The subjoined statement shows a continuance of the same steady increase which has taken place since 1853-54 in the increase derived from the Land Revenue. LAND REVENUE.

——	Estates.	Demand.	Including arrears.	Collections.	Remissions.	Balances.
		£	£	£	£	£
1867-68 - -	228,978	3,800,278	4,132,704	3,797,735	9,853	401,503
1868-69 - -	230,395	3,892,323	4,298,454	3,965,730	34,704	415,136

The number of suits instituted under the rent laws was 91,622 against 96,928 in 1867-68.

In Chittagong, under the new settlements, "jhoom" cultivation, and which has the effect of utterly exhausting the land for many years, is forbidden.

A special inquiry has been instituted by Government into the alleged encroachments by the middlemen on the "Bhumhari" tenures of the Kôls in Chota Nagpore. "Bhumhari" lands are those which are held either rent-free or at very low rents by the representatives of those who originally brought them under cultivation, corresponding therefore to "freehold" land in Great Britain, and the holder is being bound to render a certain amount of service to the zemindars. "Bhumhari" or freehold tenures.

An important question was during the year under the consideration of the Lieutenant-Governor, in concert with the Commissioners of Divisions, the Director of Public Instruction, and certain corporate bodies. An extension of vernacular education had been held to be desirable, but the Government of India declined to listen to any proposition the effect of which would be to throw upon the State the main burden of the cost of educating the people, and after referring to the educational cesses levied from proprietors in Bombay, the North-west Provinces, Oude, the Central Provinces, and the Punjaub, it urged the necessity of raising funds in Bengal in the same manner and for similar purposes, adding that the rate thus levied should be calculated for roads also, for which the proprietors of land in Bengal now pay nothing. The conclusion at which the Government of Bengal arrived was that as the position of the proprietors of land in the Lower Provinces is so different from that of the proprietors of land in other parts of India the proposed cess could not be levied in the Lower Provinces without considerably modifying the nature of the imposition. The cess upon landholders, it is stated, can only be justified when (1st) the increased profits arising from extended cultivation and high prices actually reach the zemindars and others who are under direct engagement with Government for the payment of revenue; and (2nd) when the landholders enjoying such increased profits have derived their estates by inheritance from the original settlement-holders, and have not purchased them at the market rates as an investment for capital. As a fact, in Bengal most of the zemindars have by the creation of permanent subordinate tenure placed themselves in the position of mere annuitants on their estates, and do not share in any increase of profits; while, on the other hand, the effect of the sale laws has been to transfer very many estates at full values to recent purchasers. The local Government considered any cess for educational or other special purposes in Bengal ought to be imposed by way of general direct taxation, and not Educational cess.

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left to fall on the landholders only. As regards the rates and proceeds of taxation, Bengal was already more drawn upon than other provinces; while there could be no doubt that to impose a general tax for educational purposes would tend to check private bequests and make the system of education extremely unpopular.

PUBLIC WORKS.

The total expenditure on Public Works Ordinary in Bengal during 1868–69 was nearly 1,200,000*l.*, and somewhat less than 25 per cent. over the expenditure of last year. Of this amount, a sum of about 455,000*l.* was spent on communications (almost entirely roads), a little more than 225,000*l.* on Civil Buildings, somewhat more than 177,500*l.* for Military purposes, 90,000*l.* on Agricultural Works, more than 35,000*l.* on Miscellaneous Public Improvements, which in the present instance consisted almost entirely of works connected with improvements in the River Hooghly and the landing arrangements of the Port of Calcutta. The total expenditure was some 110,000*l.* short of the Budget provision. This was due to several causes, amongst which may be enumerated the negotiations with the East India Irrigation and Canal Company for the transfer of their Behar and Orissa schemes not having been concluded so early in the year as anticipated; to the questions of the retention of the cantonments of Dinapore and Hazareebaugh being still under discussion.

Imports and exports.

The total value of imports and exports, dutiable and free, was 51,182,095*l.* against 49,082,281*l.* in the preceding year, an increase of 2,099,813*l.* The increase was chiefly in the free export trade, which increased no less than 1,627,810*l.* Dutiable imports and dutiable exports increased to the extent of 962,683*l.* In the value of free imports there was a decrease of 490,680*l.*, to which the decrease in machinery alone contributed more than 310,000*l.*

Imports.

—	1868–69.	Increase.
	£	£
Salt - - -	650,882	85,357
Piece goods -	9,604,610	405,920
Patent metals -	208,293	64,313
Wines - -	269,034	38,530
		Decrease.
Hardware and ironmongery	904,746	796,504
Twist - -	1,200,423	79,481

In the margin are shown the most important *dutiable articles* of import, and the extent to which they have either increased or the reverse. Of *free articles* there was a falling off in machinery, as already stated; in silver to the value of 169,000*l.*, and in coal and coke to the value of 54,000*l.* The last fact is interesting, as showing the influence of the coal discoveries.

Exports.

There was a very large increase in the value of the *free exports* as shown in the margin, and a decrease in opium and cotton. Silk too, though 20,798 cwt. were exported against 19,637 cwt. in 1867–68, produced 1,303,595*l.* only, or 167,268*l.* less than in the previous year. Of *dutiable* articles, by far the largest increase (845,814*l.*) was in indigo, of which the quantity exported was valued at 2,209,578*l.* Rice and oil seeds fell off 194,176*l.* and 273,240*l.* respectively.

—	1868–69.	Increase.
	£	£
Jute - -	1,880,023	570,487
Hides and skins	944,268	236,023
Tea - - -	942,147	256,826
Sugar - -	249,310	199,287
Saltpetre - -	307,329	58,645
Silver - -	2,171,904	1,076,667
		Decrease.
Opium - -	6,085,697	322,940
Cotton - -	2,401,899	422,010

The value of the trade with America was 1,549,574*l.*, while that with Australia was rather more than half a million. The first represents an increase of 328,223*l.*; the second a decrease of 113,614*l.*

SALT.

The decrease in the total quantity of salt cleared during the year and in its value, is shown in the margin. The falling off would have been much greater had not the decrease in the quantity of Government salt sold been met to some extent by an increase in the clearances of private salt.

	Tons.	£
1867–68 - -	288,645	2,688,486
1868–69 - -	260,740	2,400,945
Decrease -	27,905	287,541

OPIUM.

The *net* revenue from opium of 4,927,115*l.* in 1868-69, against 4,695,354*l.* in the previous year, showed an increase of 231,761*l.*, and was the largest that has ever been realised. The *gross* receipts from the sale of 47,235 chests of provision opium were six and a half millions sterling, or half a million more than the estimate, although the number of chests sold were less by 765 than was anticipated. The cause was an unexpected rise in the auction price, owing to which the chest sold for 137*l.* 13*s.* instead of 125*l.*

Opium cultivation occupied 762,989 beegahs in 1868-69, or 32,041 more than in 1867–68. The out-turn for the market of 1870 was expected to be considerably below the average, owing to late sowing and the drought.

To secure if possible an average produce of 50,000 chests, which will require a cultivation of 790,000 beegahs, it is proposed to reopen the divisions of Seetapore

and Rohilcund in the Benares agency, which were closed in 1865, and it is under consideration to re-introduce the cultivation in Chota Nagpore. THE LOWER PROVINCES.

The sale of the opium is conducted by a private auctioneering firm, a practice that was commenced in 1842 and has continued ever since.

The net revenue arising from the excise was 59,851*l.*, greater than in 1867–68, as shown in the margin, a result that is attributed chiefly to the continued prosperous condition of the people.

	£
1868–69 - -	578,646
1867–68 - -	518,795

The revenue derived from stamps other than postage service and telegraph in Bengal was 710,472*l.*, or 24,433*l.* more than in 1867–68, inquiry in the matter having shown that the higher stamp duty imposed under the law of 1862, has had the effect of largely reducing the number of suits in which tenants are complainants, as against those in which the landlords are plaintiffs, and as this presses severely on the poorer party, especially in suits where the whole substance of the weaker litigant is often at stake, it is proposed that the duty in such suits shall be fixed below the amount at which it is levied in ordinary civil suits, and that discretion shall be given to the courts to permit plaintiffs to appear *in formâ pauperis.* Stamps.

The number of persons assessed under the certificate tax (Act IX. of 1868), which is a substitute for the licence tax, was 72,632, the net collections amounted to 139,068*l.*, and the net result minus charges to 124,704*l.* On political and other grounds, the people of the Khasi and Jynteah hills, the Garrow hills, and the Tributary Mehals of Chota Nagpore were exempted from this tax. Certificate tax.

The new income tax Act (No. IX. of 1869), received the assent of the Governor-General on the 18th March, and was to come into operation at the commencement of 1869–70. Income tax.

The financial results of the year are subjoined; the operations of the department were confined to the Sikkim and Bhootan divisions. In the first the Government forests have all been reserved. In Bhootan great progress has been made in the Eastern and Western Dooars. The forest tracts in the Presidency of Bengal are numerous and extensive. Forests.

	£
Receipts - -	7,072
Expenditure -	11,477
Deficit -	4,405

Throughout the country south of the Brahmapootra, in Upper Assam also, in the Naga and Cachar hills there are forests of wide extent, for the most part unexplored. In Sylhet there are thousands of acres of forests uninhabited almost and impenetrable; in the hill tracts of Chittagong the workable portions are estimated to cover about 1,500 square miles; the india rubber or caoutchouc forests in the Durrung district in Assam cover an area of 585 miles.

The total out-turn of tea in the tea-producing districts of the Presidency— Assam, Cooch-Behar, and Dacca, and to a much smaller extent Chittagong and Chota-Nagpore,—is stated to have been 9,491,600 lbs. or about 2,000,000 lbs. more than in 1867–68. Tea cultivation.

	lbs.
Assam - -	4,351,772
Cooch-Behar -	853,565
Dacca - -	4,248,504

The statistics furnished for Assam are very imperfect, but those for Cooch-Behar and Cachar are more reliable, the latter especially. According to the figures given the Cachar plantations in the Dacca division produced 4,006,835 lbs., or nearly as much as the whole of the plantations of Assam.

—	1867–68.	1868–69.
Area - -	25,469	24,376
Factories - -	115	118

Taking the perfect returns for Cachar the out-turn was more by 843,525 lbs. than in 1867–68, and that for 1869–70 is estimated to be 5,051,220 lbs., or 1,044,305 lbs. more than in the year under review.

The number of imported labourers employed on the tea gardens was 14,076, besides whom about 15,000 were working in the district from choice after the termination of their original engagements.

The quantity of tea exported from Calcutta was 11,434,000 lbs. against 8,789,344 lbs. in 1867–68, showing an increase of 2,644,658 lbs.

The most important operations of the Botanical Department are those which are directed towards the propagation of the chinchona plant. The increase during the year of all the species was 673,654, and the total number of plants, seedlings, and cuttings in the Government plantations on the 31st March 1869 was 2,232,532. On the various tea plantations the plant is also extensively cultivated, and the Chinchona.

THE LOWER PROVINCES.

Darjeeling Chinchona Association possessed at the close of the year 671,518 chinchonas. Government has taken in hand the experimental cultivation of Carolina rice and of the ipecacuanha plant.

The season.

The periodical rains which set in about the middle of June were unusually heavy, inundating a great many districts of the Lower Provinces and causing considerable damage to life and property. The inundations were followed by a drought which threatened at one time to cause scarcity in several districts. From the outset the local officers by fortnightly reports kept Government fully informed of the state of the crops and the condition of the people, and they were required to submit direct to Government weekly returns of prices of food and movements of grain; measures were also taken to ensure the immediate adoption of measures of relief in the shape of works or of charity. By these means and by the liberal sanction of relief works the distress nowhere became general or very severely felt in this Presidency.

FINANCIAL.

The principal facts connected with the Imperial revenue and expenditure of the Province are given in the margin and speak for themselves. They show a decrease of 234,000*l.* in the gross receipts, a decrease, however, that was to a great extent counterbalanced by the smaller cost of collection under nearly every head. On the expenditure side there was a large increase under the three important heads "Law and justice," "Public Works, ordinary," and "Public Works, extraordinary." The net result was a surplus of nearly 10,000,000*l.*, or 573,000*l.* less than in 1867–68.

—	1867–68.	1868–69.	Increase.	Decrease.
Gross Receipts:	£	£	£	£
Land revenue	3,797,735	3,965,730	167,995	—
Opium	6,565,248	6,644,716	79,468	—
Salt	2,688,486	2,400,945	—	278,541
Customs	1,123,184	1,123,357	173	—
Other heads	2,593,327	2,398,637	—	194,690
Total	16,767,980	16,533,385	Decrease	234,595
Charges against income	2,847,468	2,704,088	—	—
Net Receipts	13,920,512	13,829,297	Decrease	91,215
Expenditure:				
Law and justice	649,930	807,370	157,440	—
Police	591,418	611,483	20,065	—
Marine	347,791	303,274	—	44,517
Education, Science and Art	213,774	229,935	16,161	—
Public Works, ordinary	916,381	1,170,411	254,030	—
" " extraordinary	—	242,637	242,637	—
Other heads	639,383	475,265	—	164,118
Total expenditure, excluding charges	3,358,677	3,840,375	Increase	481,698
Surplus	10,561,835	9,988,922	Decrease	572,913

EDUCATION.

—	1867–68.	1868–69.
Colleges and schools	3,411	3,985
Pupils	145,142	162,674

The returns for the year show an increase of 14 per cent. in the number of schools and rather less than 11 per cent. in the number of pupils; that is, there were 574 more schools and 17,532 more pupils than in 1867–68.

The aggregate expenditure of the department was 295,150*l.*, of which 119,651*l.* were contributed from private funds and 175,499*l.* by the State. This gives an increase of 20,937*l.* compared with 1867–68. The cost of each pupil was reduced in the year under review from 1*l.* 2*s.* 11*d.* to 1*l.* 1*s.* 8*d.*

Female education.

On the subject of female education the report states that without forcing it, on the natives of Bengal the Government has given every encouragement to it, as opportunity offered, in the form of the ordinary grant in aid of public instruction, or by grants to aid private tuition in zenanas or by the establishment of normal schools. No pretension can be made to a very large advance, but every measure that could with safety be advocated has received support.

The total number of pupils in girls' schools and attending village day schools for boys was 9,035. The number of native girls' schools was 267, or 27 more than in 1867–68.

In reply to a suggestion of the Secretary of State on the propriety of offering more encouragement to compilations in the vernacular languages from moral English works with the view to creating a vernacular literature which may exercise an influence over the higher education of the natives of India. It is shown that Government already gives liberal assistance to the School-book Society, and that with the natural tendency which exists in Bengal to introduce translations of English books and with the rapid spread of vernacular literature no further aid seems necessary.

The number of registrations effected shows an increase of nearly 14 per cent. over those of the previous year. The large increase in the optional registrations, 88,533 against 68,150, is chiefly to be attributed to the indigo disputes in Chumparum which led to the registration of about 15,000 contracts.

THE LOWER PROVINCES.

Registration.

1868-69 - -	213,968
1867-68 - -	187,850
Increase -	26,118

The receipts of the department were 36,727*l.* against 33,495*l.*, and the expenditure was 28,930*l.* against 25,018*l.*

General census of 1871.

Measures are being taken to ensure the completeness of the proposed general census in 1871, partial enumerations have been set on foot which will bring to light the difficulties to be provided against; and the form to be used for the embodiment of the information will be the same for all India.

Archæology.

It is not within the limits of this report to enumerate the objects of archæological and architectural interest in this Presidency. The remains of former ages in the Lower Provinces are, as a rule, of no very considerable antiquity and are generally of too miscellaneous a character to allow of systematic classification scientifically or historically.

Native publications.

Thirty-three native papers, or three more than in 1867-68 are now published in the Presidency; four of them appear monthly; four daily; and 17 weekly.

Sanscrit MSS.

The preparation of lists of Sanscrit MSS. known to exist in Indian libraries and the search for others at present unknown is being carried on with the aid of the Asiatic Society of Bengal.

HILL TRIBES.

A valuable addition to our knowledge of the non-Aryan races is contributed by Captain Lewin in a report entitled "The Hill Tracks of Chittagong and the Dwellers therein." These non-Aryans are scattered throughout the length and breadth of India; a strange people, descended from the original occupants of the country, they have been gradually ousted from the plains by successive Aryan invasions, and forced to retire to the fastnesses of the hills, where they remain hating and hated by the people of the plains, little understood by ourselves, and the cause of frontier wars innumerable.

The people whose history, manners and customs, and social life are so fully treated in Captain Lewin's report of some 150 pages, inhabit the hilly and mountainous country which rises from the rice swamps and level land of the maritime district of Chittagong. Thus bounded on the west, it intervenes between the independent State of Hill Tipperah and the Burman frontier; while on the north and north-east its boundaries are undefined. The whole estimated area is but 6,796 square miles.

With the history of our connexion with so small and unimportant a section of the Empire this report is hardly concerned. With the manners and customs of the inhabitants, as fairly illustrating those of the hill tribes all over India, it will be more interesting to become acquainted.

It is the custom of the people to remain in their villages until the cultivation season commences in May, and then the whole countryside moves up, every man to his patch of cultivation on some lofty hill. The mode of cultivation pursued in the hills is common to all the tribes. It is known as "toung-ya" in Burmah and Arracan, as "dhai-ya" in the Central Provinces, while here the method is usually called "joom," and the hill men pursuing it "joomahs." The *modus operandi* is as follows:—In the month of April a convenient piece of forest land is fixed upon, generally on a hill side, the luxuriant undergrowth of shrubs and creepers has to be cleared away, and the smaller trees felled; the trees of larger growth are usually denuded of their lower branches and left standing. If possible, however, the joomah fixes upon a slope thickly covered with a bamboo jungle of the species called "dolloo"; this compared with a dense tree jungle is easy to cut, and its ashes, after burning, are of greater fertilising power. Although the clearing of a patch of dense jungle is no doubt very severe labour, yet the surroundings of the labourer render his work pleasurable in comparison with the toilsome and dirty work of the cultivators of the plains. On the one hand, the hill man works in the shade of the jungle that he is cutting; he is on a lofty eminence where every breeze reaches and refreshes him; his spirits are enlivened and his labour lightened by the beautiful prospect stretching out before him; while the rich and varied scenery of the forest stirs his mind above a monotone. He is surrounded by his comrades; the scent of the wild thyme and the buzzing of the forest bee are about him; the young men and the maidens sing to their work, and the laugh and joke goes round as they sit down to their mid-day meal under the shade of some great mossy forest tree.

THE LOWER PROVINCES.

HILL TRIBES.

Very different on the other hand is the moiling toil of the cultivator of the plains. He maunders along with pokes and anathemas at the tail of a pair of buffaloes, working mid-leg in mud; around him stretches an uninterrupted vista of muddy rice land; there is not a bough or a leaf to give him shelter from the blazing noon-day sun. His women are shut up in some cabin, jealously surrounded by jungle; and if he is able to afford a meagre meal during the day, he will munch it *solus*, sitting beside his muddy plough; add to this, that by his comparatively pleasurable toil, the hill man can gain two rupees for one which the wretched ryot of the plains can painfully earn, and it is not to be wondered at that the hill people have a passion for their mode of life, and regard with absolute contempt any proposal to settle down to the tame and monotonous cultivation of the dwellers in the low lands.

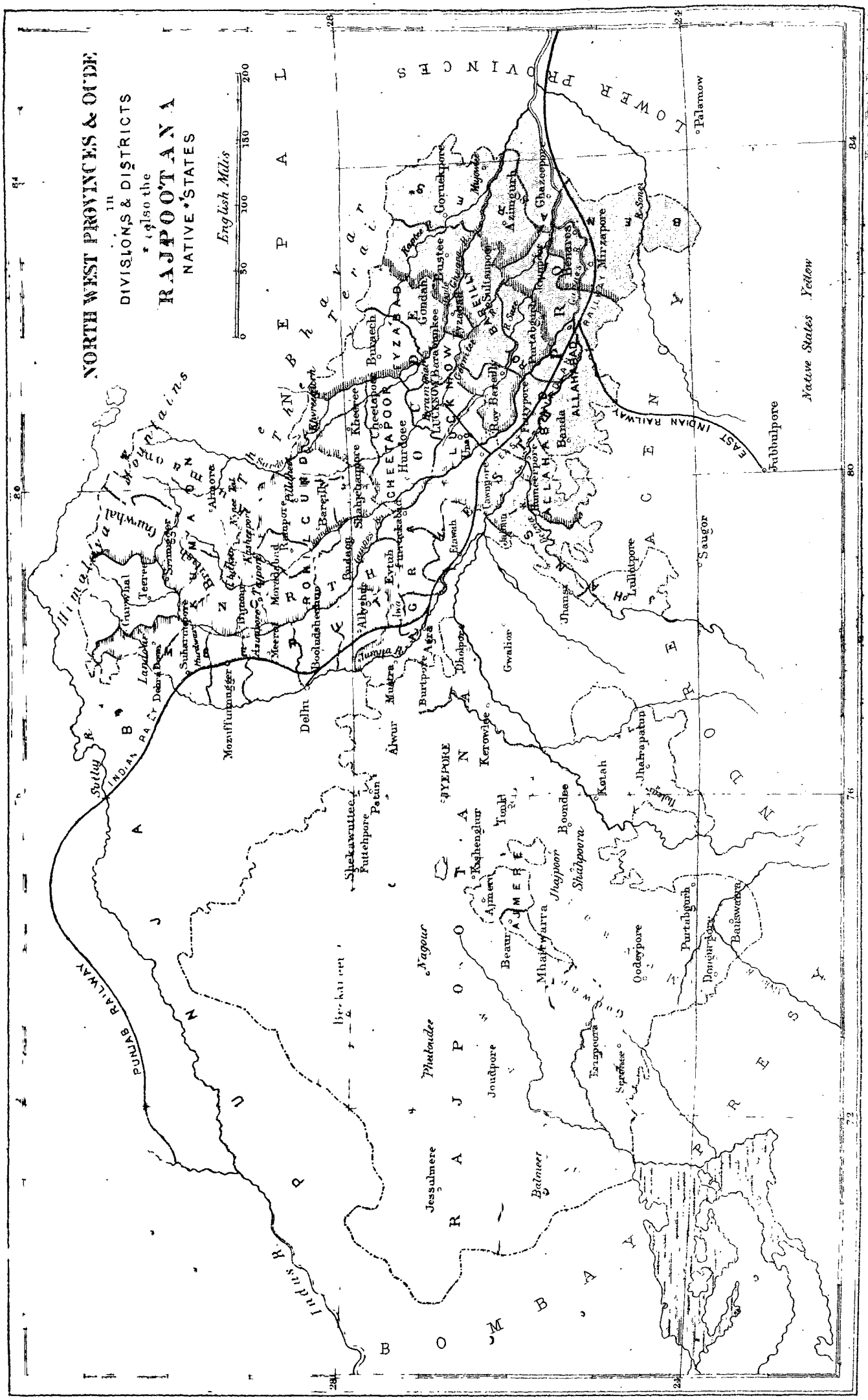
The joom land once cleared, the fallen jungle is left to dry in the sun, and in the month of May it is fired; this completes the clearing.

The village now is abandoned by everyone, and the men set to work to build a house, each in his own joom, for the crop must be carefully watched to preserve it from the wild pig and deer. The jooms of the whole village are generally close to each other; a solitary joom is very rare. During the rains mutual help and assistance in weeding the crop is given; no hoeing is done; the crop has merely to be kept clear from weeds by hand labour, and an ample return is obtained. Besides grain and cotton the hill tribes grow tobacco, which is planted principally in small valleys on the banks of the hill streams. It is rare to find a man earning his livelihood in any other way save by joom culture. Land once joomed cannot be re-cultivated for a period of eight or ten years, as in less time a sufficient growth of jungle does not spring up to give the necessary coating of fertilising ashes, without which the joom crops would yield but a poor return.

The revenue of the hill tracts consists chiefly of the tribute which is paid to Government by the chiefs of the tribes. A considerable sum of money is also obtained yearly from the tolls levied on behalf of Government on all spontaneous forest produce brought down by water or river routes to the plains. During the last two or three years, with the tranquillisation of the country, much land along the Chittagong border has been leased to men of the plains.

Our earliest dealings with the hill tribes dates from 1777, but it was not till 1860 that we interfered directly with the internal economy of the hills, when some Kookie raids on a large scale made it necessary to send an expedition to punish the offending tribe, and to secure the future tranquillity of the country by the appointment of a superintendent, or as he is now called, a deputy commissioner of the hill tracts, who is vested will full control of all matters pertaining both to revenue and justice throughout his district.

After a most complete and interesting resumé of the history, social life, &c. of the tribes, Captain Lewin concludes: "Thus, with regret, I draw towards the close "of my account of the Chittagong Hill Tribes. There is much that is loveable "about them. They are very simple and honest and merry; but they have no "sympathy with anything above the level of their bodily wants. There are whole "tracts of mind and thought and feeling which are unknown to them, and which "could not be made known by any explanation. The idea that they are well "enough as they are, is a seductive one—to live according to nature, as the old "Stoic philosophers taught,—and if this idea could be perfected, if these people "could be taught to live according to nature in its higher sense, to rise above all "gross and base indulgences, mindful of those higher laws, of which only self-"denial and self-command can render observance possible, I am not prepared to say "but that this would be the wisest and the grandest ideal. We see in all other parts "of the world that the introduction of civilisation by means of European energy "brings in its train a crowd of evils, both mental and physical; yet everywhere "throughout the world we force upon all the non-progressive races our intercourse "and finally our laws, with one grand object — Civilisation. * * * The "question seems to me to be, What is the use of this God's earth? Is it not the "happiness of the beings dwelling thereon? I doubt if civilisation would render "our hill men happier; not that I for a moment advocate leaving them undisturbed "and unassisted in their present happy barbarism. Strength of mind is better "than strength of body. But if one contrasts the simplicity and freedom of wild "life with the hollow enjoyments and artificial joys of civilisation ("*Tædet me* "*harum quotidianarum formarum*"), it should not be forgotten that civilisation


NORTH WEST PROVINCES & OUDE
in
DIVISIONS & DISTRICTS
also the
RAJPOOTANA
NATIVE STATES
English Miles
0 50 100 150 200
LOWER PROVINCES
Native States Yellow
EAST INDIAN RAILWAY
PUNJAB RAILWAY
Himalayan Mountains
Sutlej
Indus R.
Jumna R.
Ganges R.
Delhi
Agra
Allahabad
Lucknow
Cawnpore
Benares
Mirzapore
Jubbulpore
Saugor
Gwalior
Jhansi
Kotah
Ajmere
Jeypore
Jodhpore
Jessulmere
Nagour
Bikaneer
Patiala
Bhawulpore
Meerut
Bareilly
Futtehpore
Allyghur
Mozuffurnugger
Saharunpore
Umballa
Lahore
Amritsar
Ferozepore
Loodiana
Kherwee
Cheetapoor
Hurdoee
Rampore
Moradabad
Shahjehanpore
Futtehgurh
Etawah
Mhairwarra
Beawar
Tonk
Boondee
Shahpoora
Chittore
Oodeypore
Jhalrapatun
Palamow
Ghazeepore
Azimgurh
Goruckpore
Gondah
Bustee
Sultanpoor
Fyzabad
Baraunkee
Roy Bareilly
Fatehpore
Banda
Hamirpore
Jhansi
Lullitpore
Bhurtpore
Muttra
Alwur
Patun
Futtehpore
Shekawuttee
Bhatner
Bhawulpore
Khairpore
Sirsa
Hissar
Rohtuck
Kurnaul
Thanesur
Kaithul
Jhind
Loodiana
Ferozepore
Lahore
Amritsar
Umballa
Simla
Kangra
Chamba
Kahloor
Bhuttee
Kumaon
Almora
Srinuggur
Teereee
Gurwhal
Suharunpore
Dehra Doon
Landour
Kangra
Kahloor
Bhuttee
Kumaon
Almora
Srinuggur
Teereee
Gurwhal
Suharunpore
Dehra Doon
Landour
Vincent Brooks Day & Son

" has joys that are not artificial, and enjoyments that are not hollow. * * * " What is wanted here is not measures, but a man. Place over them an officer " gifted with the power of rule, one tolerant of the failings of his fellow-creatures, " apt to enter into new trains of thought and to modify and adopt ideas, but " cautious in offending national prejudice. Under a guidance like this let the " people by slow degrees civilise themselves. With education open to them, and " yet moving under their own laws and customs, they will turn out, not debased " and miniature epitomes of Englishmen, but a new and noble type of God's " creatures." THE LOWER PROVINCES.

Dr. Day's report on the fresh-water fisheries of Orissa and the Midnapore District, which reached this country in August 1869, gives the results of his investigations carried out at the close of 1868. Commencing with the Mahanuddy, he then visited numerous minor rivers, and examined any irrigation canals, tanks, or jheels contiguous to them. FISHERIES.

Fish supply the nitrogenous element, without which existence is said to be impossible, and which rice, the staple of the country, does not possess. Consequently, in a country where they are one of the main sources of nourishment, and where drought is but too common, the preservation of the fisheries is a matter of vital importance.

Here, as in Burmah, and in every country where the necessary precautions are not enforced, the carelessness of the people leads to the wholesale destruction of the fry. But, besides the usual agencies of nets, traps, &c., other causes in this district contribute to the decay of the fisheries. The construction of anicuts of late years has especially led to a great decrease in the number of fish. In some cases they are an insuperable obstacle to the fish passing up the river to deposit their ova; but in any case the fish pausing to rest before attempting the ascent are wholly at the mercy of the fishermen, who wait for them below the anicuts and catch baskets full of them. Crocodiles also, which are very numerous, are exceedingly destructive and are allowed to thrive by the natives, who say, " Are " not we both of the fish-destroying race, and how could we be so cruel as to " slaughter them?" Dr. Day was witness to the curious fact of fish burying themselves in the mud two feet deep. When dug out they were in good condition and quite lively, but were covered with a thick whitish slime; none were found in ova. They have been found as deep as five feet below the surface.

Dr. Day's proposals for the better preservation of the fish are:—that meshes, and the distances between the rattans in baskets, be large enough to allow the very young fish to escape; that one bay in each under-sluice be left open one day, at least, in every week, while water is running over the anicut; that night fishing and netting be prohibited within half a mile of weirs or anicuts; and that rewards be offered for the destruction of crocodiles and their eggs.

THE NORTH-WESTERN PROVINCES.

NORTH-WESTERN PROVINCES.

The great territory known by the name of the North-Western Provinces has an area of 83,687 square miles, and a population numbering more than 30 millions of inhabitants, or about 361 persons to the square mile; that is, the Province is nearly equal in extent to England, Wales, and Ireland together, and more populous than Great Britain alone.

It was formed at the conclusion of the great Mahratta war of 1803 of territory wrested by the army under Lord Lake from Scindia, the most powerful chief of the confederacy, with the addition of the districts ceded by the Nawab of Oude in 1801, and the Province of Benares acquired in 1781.

In shape it resembles an irregular crescent, whose western extremity reaches the snow line of the Himalayas, while the eastern stops short at the base of the mountains at the frontier of Nepal. From the south-west a small strip of British territory breaks into the agglomeration of Feudatory States controlled by the Central India Agency; and away to the west, belonging to, but very distant from, the main Province, lies the little district of Ajmere in the heart of Rajpootana.

The North-West Provinces have four natural divisions: (1) the Kumaon Himalayas, where are the tea plantations and the most important of the forest tracts of the Province; (2) the plains north of the Jumna and Ganges; (3) the tracts south of the Jumna and Ganges; and (4) Ajmere. The rivers come down from the hills, and sweeping round with the bend of the crescent pursue their course through the length of the Province. The Jumna, flowing for many hundred miles

NORTH-WESTERN PROVINCES.

nearly parallel to the Ganges, joins it at Allahabad; the Ganges is afterwards joined by the Goomtee and the Gogra, which have traversed Oude. The Province has many large and important towns, among which may be mentioned Delhi, Agra, and Allahabad, the capital, all on the Jumna; Lucknow on the Goomtee; Cawnpore, Benares, and Ghazeepore, on the Ganges.

Of the total area (53,363,152 acres), 23,747,268 are cultivated. Of the 30 millions of inhabitants 18 millions are agriculturists; and with regard to caste 26 millions are Hindoos, and rather more than four millions Mahomedans.

The Province contains eight Commissionerships, which are divided into 36 districts. These are again divided into 440 sub-districts, these sub-districts into "hundreds," and the "hundreds" into townships. These various territorial executive districts are presided over severally and respectively by a commissioner, a "magistrate and collector," a sub-collector, and a village accountant. Supreme in the Province is the Lieutenant-Governor, who is aided by a Revenue Board in all matters relating to the revenue and the land, and in the administration of civil and criminal justice by a high court.

The small British districts of Ajmere and Mhairwarra are 225 miles west of Agra, and nearly the same distance south-west of Delhi. The area of the two districts is 2,672 square miles; the population amounts to 426,268, or 160 to the square mile; and the entire revenues are 52,764*l.*, or deducting the charges for administration (30,403*l.*) there is a net surplus of 22,361*l.*

The year under review was the first of the administration of Sir William Muir, who, on the 10th March 1868, was appointed to the Lieutenant-Governorship of the North-West Provinces.

The scarcity of the season and the measures taken by district officers and Government to anticipate the worst having been dwelt on at some length in the chapter on the Central Provinces, it will be sufficient in the nearly parallel case of the North-West Provinces to dismiss the subject more briefly. Here, as in the Central Provinces, the year opened encouragingly; the agricultural classes were well off, the granaries were stocked, and grain was cheap. Anxiety commenced with the insufficient fall of rain in June, and it deepened as month after month the dearth continued. About the middle of September, however, a great storm of rain burst over a large extent of country, and extended its welcome influence from the Benares division as far west as Furruckabad. In two days 13 inches of rain had fallen, and where it fell the relief was immediate and complete. It did not reach the western districts, and from the Meerut division, from Ajmere, in the heart of famine-stricken Rajpootana, and from parts of Bundelkund, the accounts received were worse and worse, and caused the greatest anxiety to Government.

An irrigation scheme was prepared, which was capable of employing 50,000 labourers, and a central relief committee at Allahabad raised 8,650*l.* from private sources for the present exigencies of the most afflicted districts.

Fortunately, in the middle of December rain fell, and with the beginning of 1869 the prospect grew gradually brighter until all apprehension of a general famine had passed away, and the appeal for public charity was withdrawn. Not that all anxiety was over. In the district of Lullutpore alone a daily average number of 25,000 labourers were employed on the works, and one officer wrote that it will be many months before the necessity for Government aid will cease. From first to last the energetic and self-reliant conduct of the agricultural population was most remarkable. "Working night and day at their wells;" "straining every nerve to "raise water for the starving crops;" "existing wells hourly worked," &c., wrote the collectors enthusiastically of the cultivators. Nor can too great praise be given to divisional and district officers, whose devotion, zeal, and judgment have been everywhere most conspicuous.

The benefits derived from the working of the Ganges and Eastern Jumna canals cannot be over-estimated. It is reported that they were everywhere the life of the country.

While the liberal and systematic assistance of the Government was the chief agent in warding off the loss of life which has attended former disasters, and indeed marks the main difference between the recent and former calamities of the kind, the writer of the report states that two facts should not be overlooked: first, that upon the whole the country has been advancing very rapidly in prosperity and capital, and consequently in the means of resisting or tiding over the effects of drought; secondly, that it possessed a great safeguard, on former occasions unknown, in the railway, which, though it extended the area of partial scarcity, was the means of averting death and ruin from many famine-stricken tracts.

Two lessons, moreover, the experience of the year has taught: first, that relief works to be really efficient must, in part at least, be provided *on the spot;* here, as in the Central Provinces, it was found that vast numbers will not avail themselves of any distant sphere of labour; 2nd, that it is extremely difficult to form any practical estimate of the stores of food at any time existing in a province or in the country at large. NORTH-WESTERN PROVINCES.

Criminal Justice.—The total number of offences reported was 109,629, or 17,889 more than in 1867; of the 106,782 persons who were under trial during the year, 70,249, or about 66 per cent., were convicted. Considering that 1867 was a year of more than ordinary agricultural prosperity, and that in 1868 the scanty harvest gave rise to scarcity and want, the increase of crime is stated not to be more than might reasonably have been expected. In murders, however, the increase was remarkable and unaccountable; they rose from 279 to 326. JUDICIAL.

The total number of persons punished by the magistrates was 67,626; 4,158 persons, or about 6 per cent., appealed from their decisions to the sessions judges, but in 26 per cent. only were the decisions disturbed.

These facts are necessarily somewhat scanty, and for the same reason, the absence of complete returns, the proceedings of the civil courts have not been touched upon.

The number of regular police at the close of 1868 was 25,033; their cost was 376,335*l.* There were besides 76,864 village and town police, whose cost (155,231*l.*) was discharged by the landholders. Police.

There are in the Province six central, three divisional, and 31 district gaols. The total number of prisoners in confinement during the year was 78,410; the daily average was 16,767, against 16,084 in 1867. Gaols.

The total cost of the gaols was 85,953*l.*, showing an increase of 14,253*l.*, which is largely attributable to the greater number of prisoners and the high price of food and clothing. But the gross cost is considerably reduced by the proceeds of convict labour, which in nine years has amounted to 273,667*l.* This includes the value of gaol manufactures, and of labour expended on the construction, &c. of gaol buildings. The death rate was remarkably low, having been but 1·72 per cent. of the daily average.

The controlling and inspecting agency of the Educational Department remained the same as in 1867. It consisted of:— EDUCATION.

1 director.	1 inspectress of female schools.
5 inspectors.	31 deputy inspectors.
4 assistant inspectors.	68 sub-deputy inspectors.

The number of Government schools of all kinds in 1868 were 3,691; in addition to which there were 311 aided institutions, and 4,460 schools unaided, making a total of 8,462 schools. The total number of pupils was 197,812; 124,238 attending the Government, and 73,574 the private schools. Taking the population of the North-Western Provinces at 30,110,615, these figures show the per-centage under education to be ·6.

	Imperial.	Local.
	£	£
Direction - -	3,821	—
Inspection - -	16,230	1,202
Instruction - -	77,174	83,135
Total - -	97,225	84,337

The margin contains a statement of the funds devoted to education, of which it appears 88·3 per cent. goes to "Instruction," and the remainder to "Direction" and "Inspection." This is an increase of 1·6 per cent. in favour of the former.

The income realised from the school cess fund was 30,416*l.*, and it was carefully appropriated to rural education. A desire has been evinced for the establishment of a college at the seat of Government, Allahabad. It has received the encouragement of the Lieutenant-Governor, and it is hoped that it may hereafter become the nucleus of an university for the North-West Provinces. Progress in the various Government schools is slow, but steady; six were advanced from the middle to the higher class. It was thought prudent to close 49 of the poorer village circle schools (hulkabundi); it is encouraging to find that, notwithstanding this and the pressure of famine, the aggregate attendance should have advanced from 97,826 to above 100,000. The best results may be expected from these village circle schools in spreading a sound education among the agricultural class.

The attendance at the girls' schools increased from 6,864 to 7,097; but it is stated that, on the whole, progress is slow and the people are not sufficiently interested in the movement. Female education.

NORTH-WESTERN PROVINCES.

There were 90 Anglo-vernacular schools under Government control, and 70 under independent management. The Lieutenant-Governor, in his tour, was struck with the eagerness of the people for an English education.

Government Press.

350,982 books were printed for the use of the department at the Government press; their value was 2,791*l.*; in addition to which 233,559 were sold for the sum of 3,983*l.*, as many as 100,000 being purchased by persons not connected with the department,—a proof of the popularity and cheapness of the Government publications.

REVENUE.

The total demand on account of land revenue advanced from 4,039,777*l.* to 4,055,365*l.*, of which 4,026,035*l.* was collected within the year ending 30th September 1868.

COTTON.

There was in the year under review a considerable falling-off in the area under cotton, and in the out-turn. While in 1867–68 nearly 1,300,000 acres were sown with cotton, only 890,000 acres were sown in 1868–69. The produce fell from 58,162,080 lbs. to 44,201,280 lbs., and even this estimate is said to be probably too favourable, as there was considerable loss not only from the drought but from severe frost that followed in December.

The crop of 1867–68 was injured by prolonged and untimely rain; in the year under review the increased deficiency was, of course, due to the directly opposite cause.

Cotton manufactures.

It would appear that while the upper and middle classes prefer the English manufacture, the lower classes still hold to the coarse, yet cheap and strong, country cloth.

MUNICIPALITIES.

There is scarcely a city or town of any importance in the North-Western Provinces which is not administered by a municipal committee. The number of these bodies corporate on the 31st March 1869 was 63. The income of the municipalities is derived (1.) from funds placed at their disposal by the law; (2.) from those entrusted to them by the local Government; (3.) from taxation. Of the several modes of taxation admitted by law, by far the most popular is the Octroi, or duty levied on goods imported for consumption or use. "Whether it "is that indirect is considered less burdensome than direct taxation, or that the "*choongee* (literally, a handful gathered from each sale or consignment), is most "consonant with the habits and traditions of the people, certain it is that all "over the country octroi duties are readily and cheerfully paid when other taxes "are thought oppressive and intolerable."

"Not to mention the obvious advantage of training our native fellow-subjects "to think and act for themselves, to canvass important projects, to interest themselves in the well-being of their own neighbourhood,—in short, to govern "themselves within certain limits,—there are unquestionably benefits accruing to "the State and to the country from the active co-operation of the native townsmen "in municipal management. In the municipal committees we have a body, which, "if it can only be brought to act with zeal and energy, is the best calculated of "all others to supply the want of minute local knowledge."

IRRIGATION.

It has already been observed that the fears, at one time entertained, of a famine passed away with the timely rains in the latter part of the cold weather. The actual distress was ameliorated by the great irrigation works of these Provinces, which enabled the people to bring to maturity crops extending over 1,425,702 acres, the greater part of which would have yielded little but for this assistance. Notwithstanding the great heat of the season, the irrigation officers, to whom great praise is due, lived in the field; and it was only by their personal supervision that the proper supply and economical use of the water could be ensured.

The returns exhibit an increase in the extent of land watered of 665,023 acres over the preceding year, 96 per cent. more than in 1860–61, the most recent year of scarcity, and 45 per cent. greater than in 1866–67, the previous maximum of irrigation.

The financial results of 1868–69 in the entire Province are a gross income of 314,716*l.*, and a gross expenditure of 102,173*l.*, leaving a net profit of 212,542*l.*, or 8·21 per cent., on the entire capital of 2,587,305*l.* expended on the various undertakings. This is very much the largest return yet received, due chiefly to the great drought, but largely also to the extension of distributaries. Experience shows that such a rise in returns is, to a great extent, of a lasting character.

For the relief of distress there were fortunately at hand some new irrigation works capable of commencement. Chief among them is the Agra Canal, which, between September and the end of March 1869, gave employment to 760,000, or a daily average of 4,292 persons.

North-Western Provinces.

The North-West Provinces contain the most important and the most remunerative irrigation works in India.

Ganges canal.

The Ganges Canal waters the land situated between the Jumna and Ganges. Commencing at Hurdwar it flows south for eighty miles. East of Delhi it divides into three branches; and finally the northern and main channel joins the Ganges again at Cawnpore, while the two lower branches are carried on to the Jumna. The work consists at present of 654 miles of main canal and 3,040 miles of distributaries.

	£
Income - -	239,501
Expenditure -	70,482
Net - -	169,019

The gross income for the year is estimated at 239,501*l.*, or 76 per cent. more than in 1867–68.

The expenditure during the year was 70,482*l.*, so that the net income amounted to nearly 170,000*l.*, or about 14 per cent. on a total capital expenditure of 2,340,000*l.* The prospects of this canal are said to be improving rapidly. The area irrigated by it is estimated at 1,069,081 acres; and there is a very marked improvement in the irrigating duty of the water consumed, showing how much can be done to extend the area watered when economy is strictly enforced. The average number of boats plying in the canal increased from 450 to 487.

Eastern Jumna canal.

The Eastern Jumna Canal comprises 130 miles of main channel and 603 miles of distributaries. The gross income (62,545*l.*) exceeded the largest hitherto derived. The year's expenditure was 15,400*l.*, leaving a surplus of more than 47,000*l.*, on a total capital of 191,000*l.*

274,000 acres were irrigated, against 182,544 acres in the preceding year, and 239,500 in 1866–67.

The Western Jumna Canal belongs to the Province of the Punjab.

Agra canal.

The Agra Canal is a scheme for utilising the waters remaining in the Jumna after the supply of the Eastern and Western Canals has been withdrawn. Its length will be 140 miles when completed, commencing 12 miles below Delhi, it will end near Agra after flowing through the districts of Goorgaon, Muttra, and Agra. The scheme was approved in July 1868 and commenced in the October following, affording, as has been stated, employment to a large number of persons during the season of scarcity.

Minor works.

There are several minor works; the Doon canals, aggregating 67 miles in length; the Rohilcund canals, 185 miles, or 32 more than in the preceding year; besides tank irrigation in Jhansie and Humeerpore.

The net surplus on all the irrigation works in the North-West Provinces was for the year 212,542*l.*, or 8·21 per cent. on the capital of over two millions and a half expended to the close of 1867–68.

Of the total area under cultivation watered by these various works of irrigation (1,432,373 acres), rice occupied 111,000 acres; wheat, 589,000; and other food grains, 466,036.

Public Works.

	£
Imperial -	982,350
Local -	151,223
	1,133,573

The total expenditure in the Public Works Department chargeable to Imperial and local funds was 433,573*l.*, including establishments, which cost 189,666*l.*

The local funds were mainly spent on district roads.

In the Imperial expenditure the heaviest item was "military buildings," on which were spent 402,910*l.*; agricultural works cost 211,430*l.*; communications, 134,746*l.*; and civil buildings, 127,729*l.*

Forests.

Forests produced a net revenue of 24,154*l.*, or about 2,000*l.* more than in 1867–68, notwithstanding a larger expenditure. Kumaon and Gurhwal, in the Himalayas, produce the most valuable stock of timber, and it is here that a large number of varieties of Australian trees have been introduced.

Post office.

The Postal Establishment on the 1st April 1869 consisted of a staff of 6,724 persons, superintended by a Postmaster-General and 15 inspecting postmasters. The mails were carried over a total distance of 8,478 miles. The expenditure and receipts are not given.

Charitable institutions.

There are two lunatic asylums in the Province, and 116 dispensaries, which afforded relief to 558,286 patients, and although this number is 35,000 more than in 1867–68, the mortality decreased.

Vernacular literature.

Nineteen newspapers were published during the year, with an aggregate circulation of 5,016 copies. With regard to other publications it is said that new and original works are rare, and that they are mostly reprints, compilations, or translations. The rewards offered by Government for literary effort begin to bear

NORTH-WESTERN PROVINCES.

fruit, and there is every prospect that they will have the effect of stimulating sound and approved authorship.

Registration.

The total number of registrations effected was 154,713, or 22,168 more than in 1867. The fees realised nearly 30,000*l.*, or about 5,000*l.* more than in the previous year.

Public health.

The health of the people, owing to the dryness of the season and the absence of cholera, was remarkably good, the death-rate being only 1·08 per cent., against 1·25 in 1867.

The out-turn of tea at the two Government plantations in Kumaon was 22,857 lbs., or 1,269 lbs. more than in 1867–68. The expenditure (1,456*l.*) showed a large reduction.

FINANCE.

The principal facts connected with the receipts and expenditure of the year under review and of the preceding one are given in the margin. The result cannot be said to be favourable; while the gross receipts of 1868–69 were about 64,000*l.* less than in 1867–68, the cost of collection increased by 34,689*l.*; and under nearly every head of expenditure the increase is considerable. To a considerable extent the cause is to be found in the exceptional nature of the season, which raised the price of every necessary of life and added largely to the expenditure on public works for the relief of the distressed.

—	1867–68.	1868–69.	Increase.	Decrease.
	£	£	£	£
Gross receipts	5,881,715	5,817,449	—	64,266
Cost of collection, &c.	598,245	632,934	34,689	—
Net receipts	5,283,470	5,184,515	—	98,955
Payments:				
Public Works ordinary	746,969	998,303	251,334	—
Law and justice	381,393	407,368	25,975	—
Police	376,335	385,539	9,204	—
Education, Science and Art	101,480	100,687	—	793
Administration, &c.	118,970	124,543	5,573	—
Public Works extraordinary	61,538	102,651	41,113	—
Other heads	181,242	195,320	14,078	—
Total expenditure besides cost of collection, &c.	1,967,927	2,314,411	346,484	—
Surplus	3,315,543	2,870,104	—	445,439

Government press.

The money value of the work performed by the Government press was nearly 30,000*l.*, and the net profit, after deducting all expenses, was 6,081*l.*, against 5,392*l.* in 1867–68.

Rampore state.

The little independent State of Rampore is in the centre of the Rohilcund Division; its area is 905 square miles, and it has a population estimated at 484,961, or 535 to the square mile. The British system of administration was introduced in 1840 by the Nawab then reigning.

The receipts in 1868–69 amounted to 130,000*l.*; the expenditure to 112,285*l.*, leaving a surplus of about 27,000*l.* There is on the part of the people a loyal feeling to the reigning family, which is a good test of the general prosperity of the State.

OUDE.

OUDE.

Oude became a British Province in 1856 during Lord Dalhousie's administration. A Chief Commissioner was placed at its head, and the system of government applied to it was the same as that introduced in 1849 into the Punjab.

Lying close to the foot of the Himalayas its northern boundary is Nepal. South, east, and west of it are the North-West Provinces. The Province is a part of the alluvial valley of the Ganges and possesses no mountains. The rivers, of which the Gogra is the largest, descend from the hills in a southerly direction and then turn eastwards. The forests come down between them to the foot of the hills and are succeeded by a belt of the unhealthy tarâi or jungle stretching all along the northern frontier.

The Province is for the most part well watered and fertile. Its total area is 20,000 square miles, or about twice that of Belgium; its population of 11,231,368, of whom 10,000,000 are Hindoos, gives the large average of 566 to the square mile. In Belgium, the most populous country in Europe, the average in 1864 was only 440 to the square mile.

The land revenue is assessed at 1,255,259*l.*, of which the bulk is derived from land, 13,033 square miles in extent, held under 30 years' settlements, which will expire between the years 1895 and 1898.

The four Commissionerships are divided into 12 districts, and these again comprise 43 sub-divisions.

Criminal Justice.—An analysis of the figures quoted in the margin exhibits a serious increase of crime under several heads in the year 1868.

Offences reported	86,755
Persons under trial	38,170
Convicted	25,375

There were 355 riots reported, against 247 in 1867, though at the same time the number of persons brought to trial was smaller. 98 public servants were tried for taking bribes, against nine in 1867. The number of thefts reported was 49,011, against 38,235 in 1867, 42,773 in 1866, and 48,611 in 1865. The large increase under the last head is attributed to the high price of grain; no doubt rightly so, as in 29,775 cases, the property stolen was under 10*s.* in value. On the other hand there was a marked decrease in the number of prosecutions under the Stamp and Salt laws, viz., from 1,009 to 628 in the one case, and from 1,134 to 581 in the other.

A large amount of the criminal work of the Province, in round numbers one-half, is performed by Native judges.

—	Per-centage of Convictions.	
	1867.	1868.
District Courts	67	62
Deputy Commissioners' Courts	70	60
Commissioners' Courts	55	55
Judicial Commissioners' Courts	94	90

The falling-off in the number of convictions, especially in the courts of the Deputy Commissioners, indicates primâ facie that the commitments have not been so judicious, but this conclusion in the opinion of the Judicial Commissioner is not absolute, if the failure is not constant.

Appeals.

The number of appeals rose from 2,557 in 1867 to 3,939 in 1868, and the number of appeals modified or reversed in the Deputy Commissioners' Courts from 26 per cent. to 44 per cent. On the other hand, though the Judicial Commissioner, before whom the whole of the cases are passed in review, thought it necessary to call for 1,398 cases, or 1,000 more than in 1867, the result was that only 183 sentences out of this latge number were modified and 33 reversed.

—	Number.	Value.
		£
1867	22,047	306,375
1868	24,599	270,861

Civil Justice.—The number of civil suits increased, but the value of the property involved in them was less than in 1867. 10,156 of the cases were decided without contest; 6,976 were given in favour of the plaintiff, and 2,312 in favour of the defendent.

Police.

The total number of regular police was 7,998, against 8,226 in 1867, and the cost of their maintenance was 108,328*l.* The rural police amounted to 35,467, and were maintained by the landholders at a cost of 102,437*l.* Delinquents were apprehended in 56·79 per cent. of the cases reported, and 78·27 per cent. of the persons tried were convicted.

Gaols.

There are 13 gaols in the Province, of which six have been recently built, and the remaining seven are temporary structures. The average prison population was 6,046 for the three years ending in 1867, and 6,523 in 1868, an increase of 8 per cent. The expenditure was 16,458*l.*, against 20,000*l.*, the average of the preceding three years, representing a decreased cost per prisoner of from 3*l.* 6*s.* 8*d.* to 2*l.* 10*s.* 4*d.* The health of prisoners was remarkably good, the death-rate being only 2·48 per cent., against 2·72 in 1867, and far higher rates in the preceding years. Gaol manufactures produced 2,208*l.*, against 1,832*l.* in 1867.

EDUCATION.

School committees have been formed for the several districts consisting of the local officers, European and Native, and such of the Talukdárs and other Native gentlemen who take an interest in the schools. The director speaks in strong terms of the good results of the scheme.

The total number of schools in the Province, including 72 private schools, was 642. There were 30,683 pupils, and the expenditure of the year was 41,193*l.*, of which rather more than one-half was charged to Imperial revenues, and about one-fourth was obtained from a cess of $\frac{1}{4}$ per cent. on the land revenue. A comparison with the figures of 1867–68 shows an increase during the year under review of 117 schools, of 27 per cent. in the number of pupils, and of 26 per cent. in the total expenditure. The total cost per pupil was 1*l.* 4*s.* 3*d.*, against 1*l.* 6*s.* 6*d.* in 1867–68, while the cost to Government was 14*s.* 3*d.*, against 16*s.* 7$\frac{1}{2}$*d.*

—	Schools.	Pupils.	Imperial Expenditure.	Educational Cess.	Other Sources.
			£	£	£
1867–68	525	24,305	18,678	6,212	7,855
1868–69	642	30,683	21,778	10,578	8,836

OUDE.

The principal increase was in the village schools, whose number was raised from 381 to 483. These schools are popular, and the people show their appreciation of them by sending their children, requesting that they may be established, and by offering houses for the temporary accommodation of schools and teachers.

There were 20 vernacular town schools, against 14 in 1867–68, with a corresponding increase in the number of pupils from 1,324 to 2,152.

The Government female schools also have risen from 24, with 436 pupils in 1867–68, to 33, with 653 pupils in 1868–69.

The private schools are under Government inspection and are partially aided by Government. Their number was less by one than in 1867–68.

Scholarships, of which 92 were held during the year at a monthly charge of 48*l.*, are very useful in enabling clever and industrious boys to get a better education than would otherwise be within their reach.

FINANCE.

—	1867-68.	1868-69.	Increase.	Decrease.
	£	£	£	£
Gross receipts	1,426,502	1,476,183	49,681	—
Cost of collection, &c.	246,921	252,903	5,982	—
Net receipts	1,179,581	1,223,280	43,699	—
Payments.				
Public Works	215,379	215,166	—	213
Law and justice	67,539	81,559	14,020	—
Police	114,220	115,199	979	—
Education, Science and Art	18,781	22,195	3,414	—
Administration, &c.	45,964	46,598	634	—
Public Works extraordinary	Nil.	6,981	6,981	—
Other heads	32,117	32,550	433	—
Total expenditure besides cost of collection, etc.	494,000	520,248	26,248	—
Surplus	685,581	703,032	17,451	—

The comparative statement of receipts and expenditure given in the margin shows a favourable result for the year under review. The Land Revenue, owing to higher rates of assessment, yielded 1,255,259*l.*, or 39,195*l.* more than in 1867–68; and increased receipts more than counterbalanced the increased expenditure under the several heads.

Local.

The receipts of the local funds were 230,380*l.*, or about 15,000*l.* less than in 1867–68. On the other hand the expenditure (156,896*l.*) was about 11,000*l.* less also.

Wards.

Referring to the 17 estates managed by the Court of Wards the Financial Commissioner remarks on the popularity among the talukdárs generally of our management of the wards' estates. They see properties deeply encumbered taken in hand, the lands improved, the tenantry contented, the estates cleared of debt, the minor carefully educated, and the plundering of interested relatives put a stop to, and the estate finally made over to the young talukdár unencumbered and with generally a sum in hand sufficient to set him up in his new position, while the best has been done to make him capable of managing it. It is now a common thing for an embarrassed talukdár to ask that his estate may be taken under Government management, for though they know we shall restrict their personal resources in the meantime, they feel that we shall extricate them eventually.

There was a very large export of grain during the year owing to the high prices prevailing in the Agra and Delhi markets in consequence of the famine in Rajpootana and the southern parts of the Punjab. No returns of the trade of the Province are however given.

Military.

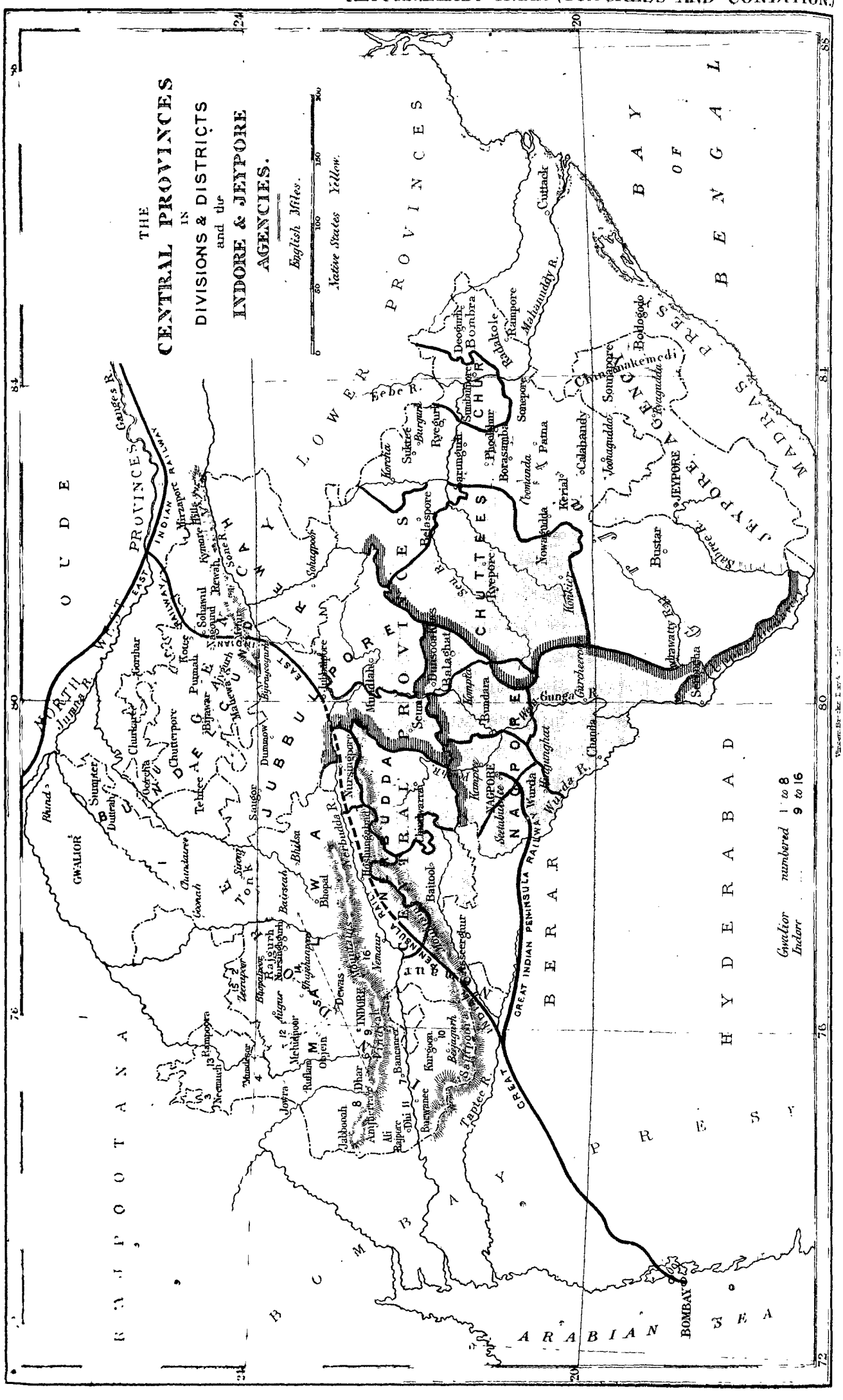
The garrison of Oude comprises 4,231 British troops and 3,234 Natives; total 7,465. Their health was good.

Public works.

The total expenditure on public works, including cost of establishment, was 226,125*l.*, of which 99,545*l.* was devoted to military works, 42,143*l.* to roads, and 40,800*l.* to public buildings.

The military expenditure was slightly below that of 1867–68. The barrack accommodation in Lucknow may be said to be complete. A gymnasium for the use of the troops, and workshops for the cavalry and infantry, were commenced and nearly completed during the year.

The preliminary surveys of the Sardah Canal were commenced in October 1868 and completed. This important work is intended to utilize the waters of the river Sardah, a tributary of the Gogra, and to irrigate the country that lies between the Gogra and the Ganges..


THE
CENTRAL PROVINCES
IN
DIVISIONS & DISTRICTS
and the
INDORE & JEYPORE
AGENCIES.
English Miles.
Native States Yellow.
0 50 100 150 200
OUDE
PROVINCES
LOWER
BENGAL
BAY OF
MADRAS
PRESIDENCY
JEYPORE
BERAR
HYDERABAD
BOMBAY
PRESIDENCY
ARABIAN SEA
BOMBAY
NORTH-WESTERN PROVINCES
RAJPOOTANA
BUNDELCUND
GWALIOR
INDORE
JUBBULPORE
NAGPORE
CHUTTEESGUR
Ganges R.
Jumna R.
Sone R.
Nerbudda R.
Taptee R.
Wurda R.
Godavery R.
Indrawatty R.
Mahanuddy R.
Hebe R.
Soane R.
Gunga R.
Chanda
Calcutta
Cuttack
Patna
Benares
Allahabad
Agra
Delhi
Bombay
Nagpore
Jubbulpore
Indore
Gwalior
Jeypore
Hyderabad
Kotah
Jeypore
Bhopal
Baitool
Hoshungabad
Nursingpore
Seetabuldee
Kamptee
Wurdah
Chanda
Warora
Ellichpore
Akolah
Amraotee
Burhanpore
Asseerghur
Mundlaisir
Rampore
Bombra
Deogurh
Sumbulpore
Ryegurh
Sukree
Burgurh
Korcha
Belaspore
Ryepore
Sohagpoor
Rewah
Kymore Hills
Mirzapore
Allahabad
Futtehpore
Cawnpore
Etawah
Agra
Dholepore
Muttra
Bhurtpore
Alwar
Jeypore
Ajmere
Nusseerabad
Neemuch
Mundesor
Jowra
Rutlam
Oojein
Mehidpoor
Aligur
Bhopawur
Rajgurh
Nursingurh
Biaora
Sehore
Dewas
Indore
Dhar
Amjhera
Jabbooah
Ali Rajpur
Dhi
Bancanee
Kurgoon
Bejeegurh
Sattpoora Mts.
Bowanee
Nowagudda
Kerial
Calahandy
Joonagudda
Soonapore
Bodogodo
Sumbulpore
Chinkemedi
Bustar
Sukma
Seetanagra
Dummow
Saugor
Chunderee
Goonah
Biaora
Kotah
Bhawar
Pumah
Kotra
Chutterpore
Gorcha
Kurrar
Sumpter
Dutrah
Bund
Jumna R.
Sirong
Tonk
Meywar

OUDE.

Forests.

The forests yielded a gross revenue of 13,182*l.* Deducting expenditure there remained a surplus of 4,051*l.*

Population.

A census of the people, taken on the night of the 1st February, showed that as is generally the case in India, the town population had been previously over-estimated and the rural population under-rated.

Of the total population of 11,220,747 persons, 6,543,296 belong to the agricultural class.

CENTRAL PROVINCES.

CENTRAL PROVINCES.

The territory under the civil and political control of the Chief Commissioner of the Central Provinces was created a separate administration in 1861 on the union of the Province of Nagpore with the Saugor and Nerbudda territories, which were then detached from the Government of the North-Western Provinces. It is bounded on the north by Feudatory States, under the supervision of the Political Agent for Central India, viz., Bhopal, Indore, the dominion of Holkar, and Gwalior, belonging to Scindia; and an agglomeration of chieftainships included in Bundelkund. West and south-west, lie Berar and the Nizam's dominions, the Godavery and its tributory the Wurdah forming a natural boundary. On the south-east the northern tongue of the Madras Presidency intervenes between the Province and the sea, and on the east are the divisions of Chota Nagpore, and Orissa, under the jurisdiction of the Lieutenant-Governor of Bengal.

The large division thus circumscribed is rather more than three times the size of Portugal. It has an area of 111,121 square miles, of which the British administered portion comprises 82,860 square miles, and a collection of 15 Feudatory States bordering on Madras, the remaining 28,261. The population of the British portion is estimated at 9,068,103, while the Native States add some 1,100,000 more, and bring the total up to 10,168,000 persons, or less three times the population of the country to which it has been relatively compared.

* Nagpore.
Jubbulpore.
Nerbudda.
Chutteesgurh.

The Province is divided into four commissionerships,* 19 districts, 58 subdivisions. Speaking roughly, the Nerbudda and Jubbulpore divisions occupy the northern, and Nagpore and Chutteesgurh the southern half of the Province.

Besides the river Wurdah and Godavery already mentioned, there are the Wyngunga another tributary of the Godavery, and the Nerbudda, which rising in the centre of the Province flows north to Jubbulpore and then nearly due west, forming for some distance the boundary between British territory and the Feudatory States to the north. North of the Nerbudda outlying spurs of the Vindhya range invade the Jubbulpore division; on its south the main range of the Sautpooras runs parallel with it and breaks up the country into valleys, mountains, and tablelands. The mountains, some of them reach a height of 4,000 feet; the tablelands are among the most healthy and fertile portions of India.

Lastly and more remarkable than all the rivers of the Central Provinces, there is the Mahanuddy, which with its system of tributaries drains the eastern portion of the Province, including the important plateau of Chutteesgurh, whose area is computed at about 10,000 square miles. Flowing north from about 85 miles south of Raepore the Mahanuddy is joined near a place called Sheonarain by three affluents, the Sheonath and the Jonk, which have pursued a somewhat parallel course west and east of it, and the Husdoo which has flowed for more than 150 miles nearly due south from the uplands of Sirgoojah. From this point the course of the Mahanuddy is due east for 60 miles to Puddumpore, then south, past Sumbulpore, to its junction with the Tel, another tributary, after which it enters the district of Orissa. The area of the main basin draining the Central Provinces is 40,000 square miles, or four-fifths of the total area, which includes the neck of the delta, and the delta proper in Orissa; its mean diameter is 225 miles; and from the centre of the basin to the sea is a distance of only 200 miles; so that the form of the basin as described by Sir Richard Temple is that of an extremely round and compact body with a narrow neck and bell-shaped mouth. The size of the basin is such that but a very moderately extending rain storm is required to ensure rain falling on every square inch of territory simultaneously, while its position is one of close proximity to the sea, the source of rain clouds.

The towns are not so large or populous as those of Oude and the North-Western

CENTRAL PROVINCES.

Provinces. The most important are Nagpore with 85,000 inhabitants; Jubbulpore with a population of 55,000; and Saugor with one of 43,000.

The season.

The difficulties of the seasons and the means taken to alleviate them occupy the largest share in the annals of the Central Provinces for 1868–69, and in the Report of Mr. Morris, the officiating Chief Commissioner, whose narrative, quoted at some length in what follows, must be taken fairly to illustrate events which in the reports of the other afflicted Provinces will be more briefly dismissed, and the splendid manner in which the executive officers discharged the responsibilities which such circumstances create.

The year, though marked by continuous anxiety and difficulty to the people and to all interested in them, fortunately passed by without very serious calamity. That the pressure of straightened means told upon the poorer classes is evident from the statistics of almost every branch of the administration. The police returns show an increase of 17 per cent. in petty crime; the prison population increased from 13,308 to 13,695; and the traffic and attendance at fairs fell off perceptibly.

—	Attendance.	Traffic.
	£	£
1867-68 -	1,524,733	427,645
1868-69 -	1,361,671	356,553

Large balances under assessed taxes are accounted for by the ruin or dispersal of the poorer taxpayers; and the revenue realised on salt fell off so much as to neutralise the increase from all other heads of a revenue buoyant even under conditions so adverse.

The number of schools and pupils did not decrease, taking the Province as a whole, but in the northern portion of it, where it has always been difficult to excite a popular feeling in favour of education, the poorer pupils were largely withdrawn by their parents, who, always disinclined to resign the profits of their children's labour for the sake of giving them instruction, readily gave way to the pressure of scarcity.

The land revenue was certainly collected with surprising ease and completeness, but it must be remembered that landholders are compensated to a great extent for loss of produce by the increased price which their surviving crop realises. Thus in Chutteesgurh the price of wheat leapt from 52 seers * per rupee in April 1868 to 14 seers per rupee in November 1868, and many cultivators must have found themselves enriched by the year of scarcity. In the fact eventual losses will arise not so much from the extent of the failure of rain as from its unequal distribution. Had it affected all alike the landholders would have been gainers instead of losers; but so capricious was the rainfall in some parts of the country that owners of totally devastated villages were tantalized by the sight of fair and even abundant harvests on the lands of their immediate neighbours. On the whole, although the revenue was realised without pressure or difficulty, there were indications in the slightly increased number of land sales and mortgages that the rise in the price of grain was no benefit to some of the more embarrassed landholders. As a rule, the landed classes are now well off in these Provinces, but there are still many who have not yet had time to shake off the burthen of ancestral debt, whilst others again are too newly established to have accumulated capital of their own.

Some of these doubtless forestalled the market by pledging their crops in advance to money lenders, and consequently reaped no benefit from the high prices which were secured after harvest time.

On the whole, however, it appears that the majority of the landed classes passed through a season of difficulty with comparative impunity, a conclusion the more acceptacle because the prosperity of the proprietary body has here a peculiarly close connexion with that of the community at large. The great bulk of the population live by agricultural pursuits, and the custom still prevails throughout the country of making the village proprietor the keystone of the system of social economy. On him the greater number, if not the whole, of his tenants depend for their seed grain, and for the means of subsistence until harvest time, while the artizans and village servants depend in their turn on contributions of grain from the cultivators; so that unless the proprietors have stores or credit the whole community suffers. The main sources of their power of resistance were no doubt abundance of land, markets constantly enlarging owing to increased facilities of communication, and light land revenue settlements; but they also benefited largely by the sympathy and succour so freely extended by the State to all who needed them.

* 9*s.* 2¾*d.* per quarter.

CENTRAL PROVINCES.

The year began with a fair promise of prosperity. The season of 1867-68 had been on the whole favourable. The Nagpore Province was tolerably well supplied with reserves of grain; in the Chuteesgurh or Eastern Division, which can at present only export when prices are very favourable, the accumulations were considerable, while, if they were not so large in the northern districts, formerly known as the Sangor and Nerbudda territories, the completion of railroad communication with the grain fields of Northern India, by means of the Jubbulpore branch of the East Indian Railway, had steadied the local markets and created confidence. Thus prices were everywhere moderate; in the land-locked markets of Chuteesgurh probably as low as in any town in India at the time.

The termination of most of the revenue settlement operations and the growing prosperity of the cotton trade had directed into a fresh channel the labours of the working classes no longer needed on completed railway works, and there seemed every reason to hope for a continuance of the progress which in seven years had increased the revenues of the Central Provinces by 22½ per cent., had doubled its schools, quadrupled its dispensaries, and given it many hundred miles of roads. But then follows the story of the drought and the gradually increasing distress throughout the country. The monsoon broke early in June, and the first fall was sufficiently favourable to induce the greater part of the cultivators to commence growing. In a short time thousands of acres were sown with rice and millets, and everything was ready for another fall. But day after day went by without rain, still, bright weather at last set in, which killed all the seed that was not artificially kept alive by irrigation, and it was not till after nearly a month of drought that rain fell for the second time, and the cultivators, taking fresh heart, recommenced their sowings from the beginning. So far there were not any indications of despondency, or even of general tendency to complaint. But when the second fall proved almost as illusory as the first a feeling of real alarm spread through the country, and the large grainholders showed everywhere a disposition to lock up their granaries. This closing of the markets was severely felt, not only by the poorer classes, but by those who having money were unable to buy, and at once relief works were opened out, and the importation of grain was encouraged by the authorities. In very exceptional cases, as in Dumoh and the southern district of Chanda, they even assisted the importation of grain with the view of inducing traders to follow the lead, and thus allaying the local apprehension of insufficiency of supplies. These measures created a general feeling of relief and confidence, which did much to keep distress at a distance.

The worst accounts of all were received from Chuteesgurh, the Eastern Division, The country has every requisite for prosperity, but it is still, comparatively speaking, newly settled, and the landed classes have not attained the strong position of their fellows in the more established portions of the Province. Then the ties of landlord to tenant and of tenant to soil are still weak. The former have often not the means to provide for the support of their dependents through difficult times, and land is still so plentiful that if it were possible to secure a tenant-right agreement, which would prevent cultivators from wandering, and attach them to the soil at a fair rent it would be eagerly welcomed by the landlord class. Thus there is a want of cohesion and solidity in the social structure which weakens the power of the people to resist the pressure of general distress, added to which the very abundance of Chuteesgurh in ordinary seasons intensifies suffering in years of failure. Food is ordinarily almost a drug, and wages are correspondingly low. When, therefore, a time of emergency comes, and prices rise to the level prevailing in the surrounding country the whole conditions of life are changed so suddenly to the classes supported by money earnings of a more or less fixed character that the struggle seems almost impossible to them, and they hardly make an effort to bear up against their difficulties.

At the close of the rainy season, in the two main divisions of the Province, that is, in the Southern or Nagpore Division and in the Saugor and Nerbudda territories about one-third of the crop, or 1,250,000 quarters were lost. In Chuteesgurh the failure had been more extensive.

Not till towards the end of January, and then only in the northern districts, was there a good fall of rain, which put an end to all anxiety with regard to the corn harvest in that part of the Province, except in a small district in the extreme north, where there was an interval of very severe suffering. The black soil of the Nagpore Province retained sufficient moisture to secure a wheat harvest not more than 15 per

CENTRAL PROVINCES.

cent. below average. In Chuteesgurh, where there was neither rain nor soil capable of doing without it, the distress was greater, and in it the chief interest centred. So apathetic were the people that at first they refused to accept work. The numbers employed on relief works are marginally shown.

December -	188
January -	1,157
February -	4,433
March -	9,220

So long as the works passed through the heart of the distressed tracts the people were willing to accept life at the cost of labour, but when it came to be a question of going 40 or 50 miles for their works, the majority preferred slow starvation life on jungle fruits. It was therefore found necessary in selecting works for execution chiefly to consider their accessibility to the suffering classes. Mr. Morris quotes the condition of the poorer classes in Chuteesgurh as an example of the dangers of cheap food; they seem, he says, scarcely to value the life which they can keep up with so little effort; the standard of their wants and wishes was so low that they dreaded the inconvenience of labouring in an unaccustomed way more than hunger. The scale of wages was fixed at 1½ annas (twopence farthing), 1 anna for a woman, and ½ anna for a child—a scale that, when it was found that they were putting by part of their pay, was reduced consistently with the necessity of making the most of the public funds. To crown the distress, cholera broke out in Chuteesgurh, a panic set in, and all who could fled. It was in the endeavour to restore order that the Deputy Commissioner, Captain Ennis Twyford, fell a victim to it.

Throughout the province the European and native communities have shown the utmost willingness to meet the distress, four of the principal native bankers and traders contributing 20*l.* per mensem each, and, in addition, feeding more than 2,000 persons daily. Government had expended up to the end of June of last year 6,000*l.* directly for relief purposes, 5,000*l.* on relief works, and 1,000*l.* on poor houses, and had given every encouragement to the suggestions of the local administrations. To the end of July 190 new wells and 58 new tanks had been constructed, and 328 old tanks and 270 old wells repaired and enlarged, at a cost of 18,600*l.*, which was advanced to the local administrations to be repaid without interest. Government also, under the exceptional circumstances, advanced money for the purchase of seed, and to those who lost their cattle; and district officers were instructed in the collection of land revenue to exercise their discretion as to pressing their demands for prompt payment. The autumn instalments were, however, realized without difficulty, there being, as a rule, a strong feeling in favour of punctual payment of revenue; but the second failure so crippled the poorer landholders that the spring instalments had not been collected in full.

The direct loss of produce in consequence of the drought is roughly estimated at 17 million maunds (2,833,333 qrs.), valued at 3,400,000*l.*, in addition to the indirect injury to the prosperity of the country from the waste of labour, the contraction of trade, and the diminution of the population.

REVENUE. Passing from this general review, the total imperial revenue collected from the Central Provinces was 1,074,515*l.* against 965,362*l.* collected in 1867–68. The gross increase of 109,153*l.* is merely nominal, arising from the land revenue instalments due on the 15th February 1868, bordering on the close of the official year, having been made payable within the following year. There was, in fact, a decrease owing to a failure in the salt revenue.

Land revenue. Everywhere the collection of the land revenue seems to have been prompt, the landlords having, as has been stated, a wholesome dread of being in debt to Government, and a vague fear of losing the proprietary right to the land only recently conferred on them at the settlement. The gross receipts from this source were 601,121*l.* against 494,003*l.* in 1867–68. The final settlement reports for the districts of Belaspore and Raepore have been received, so that when the report was written settlement operations had been concluded in 14 districts, and there were still in the hands of the settlement officers only three, Nimar, Chanda, and Mundla, which it was hoped would be dealt with by the end of October.

Waste lands. During the year 218,438 acres were excluded from village areas and adjudged to be State property, bringing the total area reserved up to 18,432 square miles. The cost of settlement operations was 19,817*l.*, or little more than half the cost of the preceding year.

Customs. The Customs' department is under a special agency. The gross receipts from the salt duty fell from 165,237*l.* to 142,808*l.*, the decrease being caused by a diversion of trade, which is explained on page 46.

The duty on sugar rose from 6,806*l.* to 8,483*l.* There was a slight falling off in

abkaree from 96,406*l.* to 95,698*l.* The liquor manufactured throughout the country is from the dried blossom of the mowah (*bassa latifolia*), which forms a favourite addition to a meal of corn or maize flour with the poorer peasantry. There was an increase in the Excise on intoxicating drugs, probably due in part to the growing wealth of the community, in part to the introduction of new tastes and new facilities for luxury consequent on improved means of communication. CENTRAL PROVINCES.

The stamp revenue increased 7 per cent., from 78,141*l.* to 83,560*l.*, principally under the head "Judicial Stamps." Stamps.

10,589*l.* were collected under the certificate tax, which recently came into operation, replacing the licence tax, which produced 1,835*l.*, and was levied on official salaries only. The certificate tax is levied on all incomes above rs. 500. Certificate tax.

The pandhari tax, an old native impost, realized 26,527*l.*, the number of persons assessed under it being 289,505. The decrease under this head is due to the transfer of the higher incomes to the certificate tax. During this year the appropriation of half the income under pandhari to local public works was sanctioned, but was frustrated by the necessity for relief operations. Pandhari tax.

The number of new suits which came before the courts was 56,779, value 367,116*l.*, against 48,159, value 300,167*l.*; an increase of about 17 per cent. The value of suits continued small (6*l.* 8*s.* being the average), and nearly 90 per cent. were for money due. The tendency of civil suits to increase had always been manifest, but no special cause can be assigned for the present great increase. Comparatively few cases remained undisposed of at the close of the year, the action of the courts taken as a whole was prompt, and from the small number of appeals the public would seem to have been satisfied with their decisions. Six small cause courts were established under Act XI. of 1865. JUDICIAL. Civil justice.

The total of reported offences, cognizable and non-cognizable, was 35,768; in 1867 it was 31,740; in 1866, 35,156. The total number of persons brought before the court was 45,462. Flogging as a punishment is believed to be very efficacious and deterrent in cases of petty crime, care being taken that in every case it is warranted by the nature of the offence and suitable to the condition of the offender. The results of the year are on the whole considered satisfactory. In a season of famine and distress crime increased but little; organized crime on a large scale is well kept under; the courts work with increasing regularity and precision, and are closely supervised by the judicial commissioner. Criminal justice.

The force at the close of 1868 numbered 8,682 men of all ranks; its cost was 150,000*l.*, of which 137,467*l.* was derived from imperial and 12,449*l.* from local funds. The bearing of the police towards the people was on the whole well spoken of. The results of the year are satisfactory, indicating an improvement in discipline and behaviour. Police.

The construction of gaols steadily progressed during the year. The total number of prisoners in custody was 13,695 against 13,038 in 1867. The number of juvenile offenders is still large; they are kept as much as possible apart from the other prisoners. The expenditure was 24,083*l.*, slightly less than in the previous year, giving an average of 6*l.* 14*s.* for each convict, or, after deducting the amount defrayed by his own labour, of about 4*l.* One hour a day is devoted to the education of adults. The School of Industry at Jubbulpore continued to work well, the manufactures still maintaining their high reputation. Tents have been sent to all parts of India, and even to Bushire and Muscat. A large commission was in progress from a London carpet merchant, and an order had been received for a carpet for Her Majesty the Queen. The improved health of the prisoners was most satisfactory. Gaols.

The second year of the working of the Act for the registration of assurances maintained the success which marked its introduction, showing that the people seem fully alive to the advantage of publicly recording their agreements. The number of instruments registered was 17,798, an increase of 34 per cent.; of this number 11,279 were optionally registered, and 6,519 compulsorily. The financial results were also satisfactory, the receipts amounting to 43,790*l.*, the expenditure to 3,487*l.*, leaving a considerable balance in favour of the department. Registration.

The public works of the Province are conducted in 17 divisions, which are grouped under four circles of superintendence. The total allotment amounted to 545,000*l.*, and the net expenditure to 526,926*l.* The works were pushed with a vigour exceeding that of any previous year. Military buildings and communication in particular made rapid strides; but irrigation was not on a basis sufficiently sound to warrant the expenditure of the sum set apart for its prosecution. PUBLIC WORKS.

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The sum expended on military works was 164,076*l.*, exceeding the estimate by 4,000*l.* The stations at which they are contemplated or in progress are Jubbulpore, Saugor, Kamptee, Nagpore, and Khundwah.

Military buildings.

Irrigation.

It has been stated that irrigation in the Central Provinces has not been put on a sufficiently sound basis to warrant a large outlay of capital. The considerations that induce this hesitation are weighty, and the chief of them may be briefly explained. Drought in this province is most rare, and such a season as that of 1868 cannot be recalled. This being so, the mass of the landholders, with regard to the monsoon months at least, are content with things as they are, and object to paying for canal water when "God has been very good to their country, and never fails to send water in the monsoon months." Rice growers certainly are safer the other way, but their lands are confined to particular localities, and those not the easiest to convey water to. The feeling in favour of spring irrigation for the hard-grained cereals is more unanimous, and points, in the opinion of the district officers, to the groundwork on which irrigation projects should be based with any hope of success. The desire of the Administration is to lay before Government a scheme for a perennial canal flowing from a reservoir, as well as a monsoon canal utilizing the floods of the rivers of the country. The Kanhan project, for the south-eastern portion of the Nagpore district, will illustrate the one, the Pench Anicut project, irrigating the plains north of Kamptee, the other; and the value of the different systems will then be contrasted and discussed. The one was completed during the year; the Kanhan scheme was shortly to be ready for submission.

Communications.

No new roads were commenced during 1868–69, but good progress was made in those already begun. The most important is the Great Northern Road, from Nagpore to Jubbulpore, 160 miles in length, which is the only piece of road that breaks the great line of postal communication between Calcutta and London. Connected with it is a military transport train, established by Sir William Mansfield, which effects the passage from Nagpore to Jubbulpore in five days, and during the season conveyed 5,000 soldiers and their families without a single accident. The eastern road from Nagpore to Raepore and the roads north and south of Saugor gave employment to crowds of starving inhabitants.

Godavery navigation.

The net expenditure on the Godavery works, not including cost of establishment, was 97,700*l.* The passage of the first barrier is now effected by the short canal known as the "minor project," and the anicut was approaching completion. The second barrier works progressed steadily in spite of many drawbacks, the chief of them being the difficulty of obtaining labour, owing to the unhealthiness of the district; and surveys for the third barrier project, as well as a road from Chanda to Diwulmerree, had been completed.

Miscellaneous and municipal works.

These are constructed from local funds, and under local superintendence, assisted where possible by the advice of Public Works officers, and in some cases under the immediate control of a district engineer. They consist of such works as city tanks, public gardens, sanitary improvements, and other undertakings beneficial to the municipalities, and in which Government aid is not generally called for.

EDUCATION.

Every civil officer uses his influence both with the rural and town population to promote the cause of education, which thus becomes in some degree the fashion, so that even the feudatories following the general example are induced to set up schools after the Government model, and apply for trained masters. Besides the district officers each deputy commissioners is aided by an educational officer, who acts solely under his orders; and the Inspector General of Education for the province, with a staff of circle inspectors, maintains one uniform system of tuition and classification in each school according to its grade, provides the necessary masters' report on the state of all the schools, and is entrusted with the finance of the department. Every school has its own committee of management, formed for the most part of influential native residents, whose suggestions meet with ready attention from the circle inspector or district officer, and who, exercising within defined limits a joint authority with the town or village schoolmaster, prevent him from exercising his duties irrespective of the views and wishes of the native community, whose children he instructs. On this broad basis it is hoped that in a few years there may be in the Central Provinces a really national system of primary education. Committees and masters are guided by a manual of instructions, and by rules, which together with the prescribed curriculum are found in every Government school in the prevailing vernacular.

The results of the year show an improvement under every head. The number of schools of all classes were 1,694, an increase of 49, or nearly 3 per cent., over

1867–68; the scholars increased nearly 8 per cent., from 67,490 to 72,835; the expenditure from imperial funds was 21,738*l.*, or 17·7 per cent. more than in 1867–68, and that from local funds was 27,838*l.*, an increase of 4·2 per cent. The average daily attendance was 44,480, or only ·8 per cent. more than in the previous year. This, as well as the comparatively small increase in the number of scholars, was in consequence of the exceptional character of the season. There is now one school for every 67 square miles, and one person in every 125 under instruction. CENTRAL PROVINCES.

The prevailing languages taught are Hindi, Marathi, and Oorya—the vernacular dialects of the north, south, and east. Of the total number of 72,835 pupils, 65,728 are Hindoos, and 4,511 are Mahomedans, and the ratio of pupils to the population of the two races are 1 to 52, and 1 to 104 respectively. Languages taught.

Education among the hitherto degraded non-Aryan classes is growing, and the consent of the students at one normal school to sit side by side with the despised Chumar is a cheering instance of the liberalising influence of popular as opposed to class education. Nor are physical and technical training neglected; there are gymnasia at several schools, and the engineering school, which it is proposed to open at Nagpore, will, it is hoped, supply competent overseers, who will be especially useful in mining operations and the construction of a branch railway, should the coal at Chanda prove valuable. Education of the non-Aryan classes. Physical and technical education.

The high class schools are four in number, at Jubbulpore, Nagpore, Saugor, and one at Chanda, which was established during the year under review; the number of pupils attending them increased from 801 in 1867–68 to 1,010 in 1868–69. High class schools.

These schools, Government and aided, increased during the year from 766 to 1,051, and the number of pupils from 37,471 to 52,159. Lower class schools for boys.

The same class of schools for girls increased by two, and the number of pupils by 340, from 4,340 to 4,680, a result notably due to the improvement of the Goverment schools. Lower class schools for girls.

Mention should not be omitted of the male normal schools, with 137 pupils; of the three normal schools for women, of whom it should be remarked that the majority are widows and Brahmins; of the museum, visited by 91,566 persons, 11,352 of them native women; of the native libraries, which receive grants not in money, but in books.

The gross receipts of the Central Provinces rose from 965,362*l.* to 1,074,515*l.*, and there was an increase of 111,899*l.* in the net receipts, which has been explained to be merely nominal; but a largely increased expenditure, chiefly under the head of public works, which cost nearly half as much again as in 1867–68, raised the deficit from 48,813*l.* to 111,141*l.* FINANCIAL.

——	1867–68.	1868–69.	Increase.	Decrease.
	£	£	£	£
Gross receipts	965,362	1,074,515	109,153	—
Cost of collection, &c.	312,806	310,060	—	2,746
Net receipts	652,556	764,455	111,899	—
Expenditure:				
Public Works ordinary	355,006	526,926	171,920	—
Police	141,296	137,467	—	3,829
Law and Justice	87,025	94,742	7,717	—
Administration, &c.	43,930	45,264	1,334	—
Education, Science, and Art	21,346	24,554	3,208	—
Other heads	52,766	46,643	—	6,123
Total expenditure in addition to cost of collection	701,369	875,596	—	—
Deficit	48,813	111,141	—	—

Distinct from these receipts from imperial sources and this expenditure for imperial ends, are the receipts and expenditure of the municipalities, which amounted in the year under review to 174,786*l.* and nearly 170,000*l.* respectively.

The chief Government treasuries are the branches of the Bank of Bengal at Nagpore and Jubbulpore.

Paper currency is largely employed in the adjustment of the annual exterior trade with Bombay and Berar, and in a minor degree it is used as a local medium of exchange.

There was an outbreak among the Khonds in the Patna feudatoryships, produced by the tyranny of Lal Bishnath Singh, their landlord, and the inability of his brother, the Rajah, to protect them. This and the progress of boundary settlements between the Central Provinces and certain Native States are the only two subjects touched under the head "political." POLITICAL.

The number of Imperial post offices was 103, eight having been opened during Post office.

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the year; and their number will increase as the district offices gradually rise in importance and become ready for transfer to the Imperial department.

Electric telegraph.

A new line for opening direct communication with Bombay, and intermediately with the important cotton districts in Berar, was the most noticeable undertaking of the telegraph department during the year.

Military.

The military force at the close of 1868 was in all 8,727, of whom 3,385 were Europeans. They garrisoned six cantonments and four out-posts, and they were furnished in about equal proportions from the Bengal and Madras armies; Bombay furnishing four companies for the fortress of Assergurh.

Forests.

The gross receipts from sale of timber were 35,000*l.*, a slight increase over the previous year, but the expenditure was much heavier, leaving a balance of 3,227*l.* The State reserves are administered by the Special Forest Department. Progress was made in their survey and demarcation; most of the forest ranges of the north and west are now completely defined by masonry pillars, and their boundaries cleared of undergrowth for protection against annual fires; but extensive tracts, more particularly in the east and south, still remain unexplored. The experimental teak plantations suffered severally from the dryness of the season. The yield and working of the forests did not answer expectation. The unreserved forest wastes are worked by the district civil officers, by whom they are leased out for the year in blocks to the highest bidder for the collection of forest produce, including fire-wood, small timber, gum, fruits, and the like.

WASTE LANDS.

The area of waste lands unappropriated at the commencement of the year was 9,639,120 acres, of which nearly 30,000 were sold during the year, at an average price of 4*s.* per acre.

FAIRS.

Eighty fairs were held during the year, and were attended by 1,361,671 persons. The value of the property brought for sale was 600,000*l.*, of which more than half, to the value of 356,000*l.*, was sold. Of this same, English piece goods fetched 66,456*l.*; country manufactures and raw produce, 157,444*l.* All these figures show a falling off, due to the season and the outbreak of cholera.

Hospitals, &c.

There are 79 charitable institutions in the Central Provinces, the majority of them (66) dispensaries. The number of patients treated increased from 167,881 in 1867 to 206,400, or by 23 per cent.

Tree culture.

The year was a very unfavourable one for tree culture. The number of nurseries are 127, under the management of the local authorities, 33 in the charge of the Public Works Department. The two bodies expended 5,000*l.* and 3,000*l.* respectively. The landholders in many districts continue to interest themselves in the matter.

TRADE.

The returns of the trade of the Central Provinces are obtained by securing the registration of all traffic crossing the frontier in and out of the provinces; that crossing the river Courdab on the frontier, between the provinces and the Berars, requiring a larger establishment for the purpose than elsewhere, on account of the number of fords to be watched. The most important exterior traffic is, however, carried by the railway, which intersects the frontier at three points, and the opening of the line to Jubbulpore has made that town the trade entrepôt for a wide extent of country, more particularly for salt and sugar. Much is being done to meet the increasing necessity for a complete set of metalled roads to connect it with the markets dependent on it for supplies. The drought that prevailed during the year was the cause of an important change in the flow of the salt traffic towards the northern districts of the Central Provinces. Usually salt for the Saugor and Nerbudda territories is brought by pack bullocks from the native states of Rajpootana; paying duty on crossing the line inwards at Saugor, it has been passed on to Jubbulpore, thence to be distributed over the country. But the grievous famine in Rajpootana in the year under review, the scarity of water and forage, gave a check to the usual course of trade; the imports from that direction were reduced by 100,000 maunds, and there was a loss to the revenue in Customs' duty of nearly 30,000*l.* The opportunity was not neglected by the Jubbulpore traders, and the deputy commissioner of that district writes:—"A very large increase is shown in "the salt trade; this must be set down entirely to the railway, which has brought "in such a large quantity of the Lahoree rock salt that the Sambhuree (Rajpoo-"tana) salt has become a drug in the market; for no one will buy it at the "rate of 4 seers per rupee, when pure rock salt is procurable at 6 seers per rupee. "Many of the large merchants in the place have been speculating on this, and "inform me that they expect the Lahoree rock salt will quite supersede any other "here if the supply continues good,—for it is very pure, and the opening of the

CENTRAL PROVINCES.

"railway to Umballah reduces the cost of carriage so much that, coming as it does "from the Jhehun salt range to the heart of Central India, it can still be sold one-"third cheaper than the salt brought from the Sambhur lake in Rajpootana."

A similar diversion has taken place in the sugar traffic between Bombay and Malwa, but not from the same cause, the sole reason being the imposition, in September 1868, of the usual transit duty of a rupee a maund on sugar passing in that direction through Khundwa. The duty being more than the difference in the cost of carriage by cart, the sugar traffic, and with it much of the traffic in other articles, has been diverted from the railway to the road, and while the additional Customs' revenue amounted to 327*l.*, the railway company have lost the carriage of 2,610 tons.

With regard to the resources of the country, the only noticeable feature is the improved prospects of the Chanda coalfield. Boring operations have shown the existence of a seam of coal 28 feet thick, which is calculated to underlie an area of two square miles in extent, between the city of Chanda and the Wurdah river.

The following figures give the value of the principal articles of import and export for the year:—

—	Imports.	Exports.
	£	£
Cotton - - - -	116,252	653,517
Sugar - - - -	165,372	96,357
Salt - - - -	515,558	39,799
Grain - - - -	251,849	252,419
English piece goods - -	968,331	728,798
Metals and hardware - -	728,160	196,617
Miscellaneous European goods -	396,208	374,652
Country cloth - - -	43,594	347,562

Cotton shows a large increase in exports over the previous year. The largest proportion still continues to be sent from the Nagpore country, and is commercially designated "hingunghat." The prices for the past season's consignments of this article were for:—

Middling fair - - -	$10\frac{5}{8}d.$
Fair - - - -	$11d.$
Good fair to good - -	$11\frac{3}{4}d.$

The average price on the aggregate exports was $6\frac{1}{4}d.$, a higher rate than has prevailed since 1865–66, when it was $9d.$ The sugar import trade fell from 326,702 maunds to 190,651, owing partly to the diversion of traffic already noticed, and partly to diminished production in the North-Western Provinces. The salt import trade maintained its average of 30,000 tons. The exports of oilseeds increased from 16,000 lbs. to 58,000 lbs. Railway materials and military stores are the main cause of the high figures under the head of metal and hardware.

The aggregate trade of imports and exports crossing the outer frontier of the Central Provinces was as follows:—

—	Tons.	Value.
		£
Imports - - -	133,357	6,801,927
Exports - - - -	92,669	6,216,327
Total - -	226,026	13,018,254

—	Tons.	Value.
		£
Imports - - -	120,990	4,031,842
Exports - - -	88,099	2,763,421
Total - -	209,089	6,795,263

The figures in the margin, which exclude Government stores and railway material, show that the actual trade of the year was about equal to the average of the past three years, and nearly double that of the year 1863-64.

AGRICULTURE.

The Chief Commissioner has drawn up a review of the agricultural operations during the year which is accompanied by agricultural statistics.

The total area of the Province is 50,865,135 acres, of which 21,032,695 acres

CENTRAL PROVINCES.

are barren, and 29,832,440 are cultivable. About one-half of the whole cultivable area is under the plough. Food grains it appears occupy 79 per cent. of the land, cotton 5 per cent., oilseeds 7 per cent., and other seeds the remaining 9 per cent. The average rice crop is about 574 lbs. per acre; but in the year under review the drought caused a decrease of some 46 per cent., and the average for the province was about 308 lbs. only. Taking all the food grains, the loss may be roughly stated at about 30 per cent. The out-turn of cotton was as high as in an average good year.

The total produce of food grains for the entire Province was in 1866–67 nearly 58 millions of maunds; in 1867–68, when heavy rains slightly injured the wheat, it was about 52½ millions, and in 1868–69 rather less than 39 millions.

Experiments were made, with varying success, with hingunghat and other kinds of cotton; with potatoes, rice, sugar-cane from Otaheite, indigo, &c.

Much cannot be said for the success of the experimental sheep and cattle breeding.

The report concludes with a brief account of the different district public gardens which with one exception, are all under the management of the local committees.

Godavery navigation.

It may be well, in conclusion, to give a brief account of the Godavery Navigation Works, prefacing it with the hardly necessary remark that they are quite distinct from the irrigation works which are being carried out by the Madras Government in the Delta.

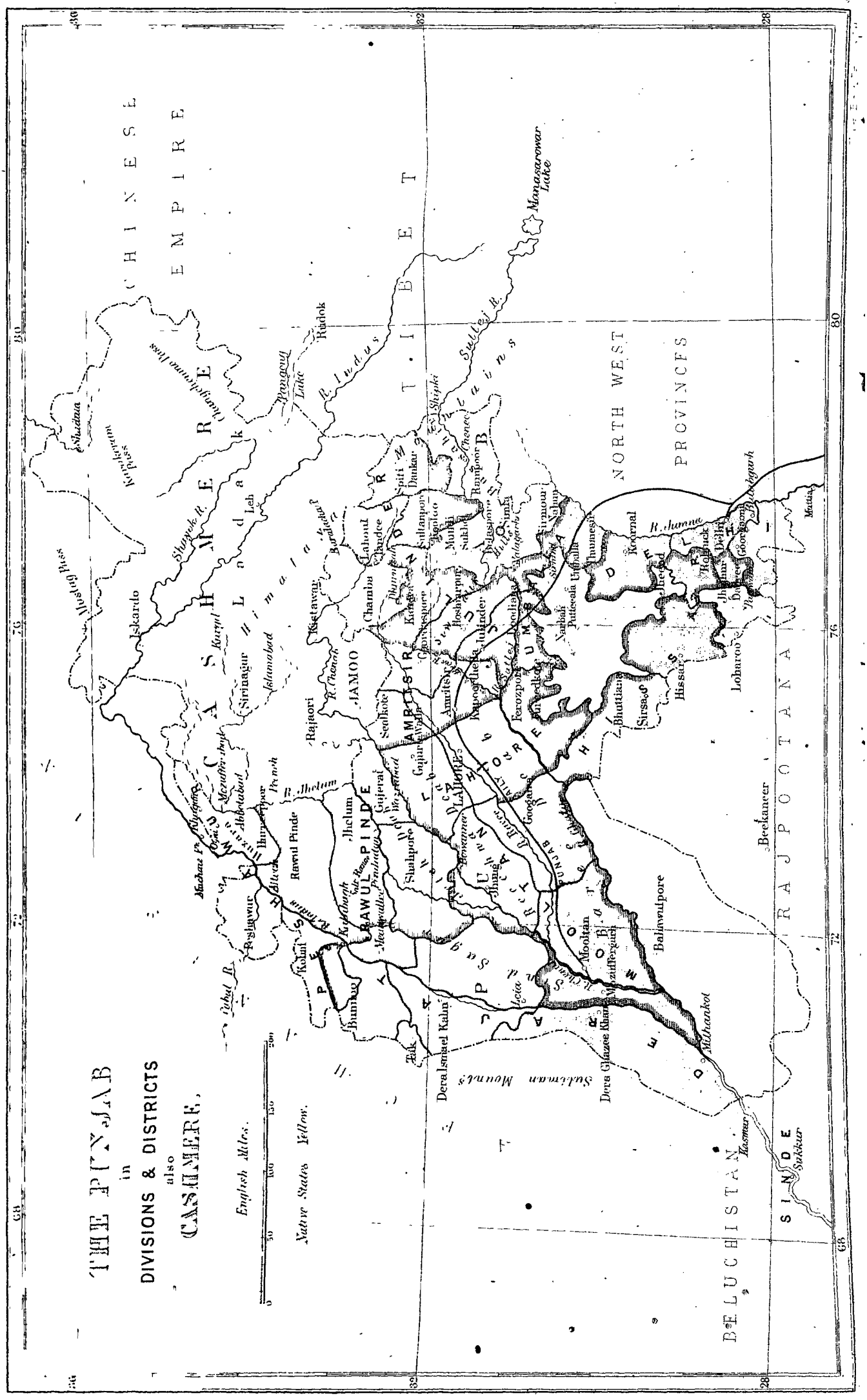
Godavery works.

The object of the navigation works is the removal of certain impediments to the river traffic between the cotton producing districts and the sea. These impediments are three in number, and consist of long parallel ranges of rocks,—outcrops in fact which by the action of water have been denuded of the soil that once covered them; they are termed "barriers"; two of them are encountered in the Godavery itself, the third in its affluent the Wurdah.

The Godavery rising in Khandeish, west of Nassick, a station on the G. I. P. Railway, and about 50 miles from the sea is hopelessly unnavigable until its junction with the Wurdah river at Seroncha after a course of some 500 miles E.S.E. through the Nizam's dominions. The Wurdah forms the boundary between the Central Provinces and Berar, and flowing in a south-easterly direction through a very rich cotton growing country receives on either bank the streams that drain some of our best cotton lands,—the Wunna on which Hingunghat is situated,—further south and nearly opposite Chanda, the Pyngunga which for some distance forms the southern boundary of Berar, and flows past Edulabad, a place hardly less celebrated for its cotton than Hingunghat itself; further south again on its left bank the Wurdah is joined by the Wyngunga, and at the same spot the "third barrier,"—the first on the journey down the river but the third from the sea-board—is met. This barrier is the most formidable of the three, being 35 miles in length. The reach from the foot of the third barrier to the head of the second, about 25 miles south of the junction of the Wurdah and Godavery, is 75 miles in length. But it will be sufficient to give the distances in a tabulated form. From Poolgaon station where the railway crosses the Wurdah,—the furthest point to which it can be expected to carry navigation inland—to the sea, is 494 miles, and the distance is divided as follows:—

	Miles.
From Poolgaon to head of 3rd barrier	150
The length of barrier	35
From foot of 3rd barrier to head of 2nd barrier	75
Length of second barrier	14
From foot of 2nd barrier to head of 1st barrier	68
Length of 1st barrier	20
From foot of 1st barrier to Dhowlaishwarum	98
From Dhowlaishwarum to Coconada by Canal	34
Total	494

The works were commenced in January 1861. Their object will be accomplished by carrying the traffic round the barriers by means of canals; each barrier is indeed a sort of natural *anicut*, throwing back the river and assisting the formation of a head-water for a canal. The first barrier is now circumvented, but the two most formidable ones have yet to be taken in hand. The completion of the work would render the river navigable from the sea to Chanda during the rainy months.


THE PUNJAB
in
DIVISIONS & DISTRICTS
also
CANTONMENTS.
English Miles.
Native States Yellow.
CHINESE EMPIRE
TIBET
KASHMERE
HIMALAYAS
Shadaan
Iskardo
Karpul
Leh
Rudok
Manasarowar Lake
Rangeul Lake
R. Indus
Sutlej R.
Shipki
Spiti
Bunjee
Kistawur
Rajaori
Chamba
Lahoul
Chumba
Kangra
Nadaun
Hoshyarpur
Sultanpore
Mundi
Sukhet
Rampoor
Bilaspore
Nalagurh
Simla
Subathoo
Simmour
Sahun
Nahun
Puttealla
Umbalah
Thanesir
Kurnaul
Jheend
Rohtuck
Delhi
Jhujjur
Bhurtpore
Rewaree
Gooragaom
Rhotuck
Mutra
Lohurco
Hissar
Sirsa
Bhuttiana
Fuzilka
Ferozpore
Loodiana
Jullundur
Kapurthulla
Amritsar
Goordaspore
Seolkote
Wuzeerabad
Gujerat
Jhelum
Rawul Pinde
Rotas
Kohat
Peshawur
Hushtnuggur
Mozuffer Abad
Abbotabad
Hurripoor
Punjab
Chenab
Ravee
Sutlej
Beas
Gogaira
Montgomery
Shahpore
Jhung
Mooltan
Dera Ismael Kahn
Dera Ghazee Khan
Sulieman Mounts
Muzuffergurh
Leia
Bahawulpore
Beekaneer
RAJPOOTANA
BELUCHISTAN
SINDE
Sukkur
Kasmar
Mithankot
NORTH WEST PROVINCES
DOAB
BAWULPINDE
JUMMOO
AMBRISTR
JULLUNDUR
SIRHIND
MOOLTAN
BAHAWULPORE
PUNJAB
Indus
Jhelum
Chenab
Ravee
Sutlej
Beas
Attock
Rotas
Kohat
Peshawur
Hushtnuggur
Mozuffer Abad
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Shipki
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Nadaun
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Sukhet
Rampoor
Bilaspore
Nalagurh
Simla
Subathoo
Simmour
Sahun
Nahun
Puttealla
Umbalah
Thanesir
Kurnaul
Jheend
Rohtuck
Delhi
Jhujjur
Bhurtpore
Rewaree
Gooragaom
Rhotuck
Mutra
Lohurco
Hissar
Sirsa
Bhuttiana
Fuzilka
Ferozpore
Loodiana
Jullundur
Kapurthulla
Amritsar
Goordaspore
Seolkote
Wuzeerabad
Gujerat
Jhelum
Rawul Pinde

PUNJAB.

The territories under the Government of the Punjab and its dependencies, exclusive of independent States, comprise:—(1), the Cis- and Trans-Sutlej States, which were originally placed under a chief commissioner in 1845, after the close of the first Sikh war; (2), the Punjab proper, annexed in 1849, after the second Sikh war; and (3), the Delhi territories, transferred from the North-Western Provinces to the Punjab Administration in 1858, after the great rebellion. The province is bounded on the north and north-east by the Himalaya mountains; on the east by the river Jumna; on the south by the district of Muttra in the North-Western Provinces, the States of Rajpootana, and the river Sutlej; and on the west by the Suliman mountains and Afghanistan. Measured in a direction from north-west to south-east, *i.e.* from the Peshawur valley to the borders of the Muttra district, the distance is about 650 miles; and from south-west to north-east, *i.e.* from the borders of Sind, near Kasmúr to the Báralácha pass in Lahaul, the distance is about the same.

Of the total area of British possessions in the province, amounting to 102,000 square miles, or slightly less than half the size of France, 31,513 square miles are cultivated, 25,333 are culturable, and 45,155 are unculturable. There is an area of unappropriated waste land at the disposal of Government, amounting to about 13,000 square miles, not including the extensive grazing lands of the Jhelum district.

The total length of water communication is returned as 2,900 miles. Roads, metalled and unmetalled, aggregate 19,052 miles in length; and there were during the year under review 356 miles of railway open to the public. The Punjab Railway connects Mooltan with Amritsur; the Delhi Railway connects Amritsur with the northern terminus of the East Indian Railway at Delhi; a third railway is about to be commenced connecting Lahore with Peshawur, and two others are under consideration, one to connect Mooltan with Kotri on the Indus, the other to connect Delhi with the Bombay and Baroda Railway at or near Baroda.

The area of Native States in political relation with the Punjab Government may be estimated at 200,000 square miles. So that the British possessions and Feudatory States of the Punjab taken together have an area nearly half as large again as that of France.

The mountains and elevated tracts of the province consist of, first, that portion of the Western Himalayan which bounds the Punjab; next, the subordinate group of hills at the foot of the Himalaya, including the Siválik; next, the Salt Range; then the Suliman or Solomon's mountains, on the Afghan side of the Punjab; and, lastly, the hills of the Delhi and Gurgaon districts, offshoots of the Aravalli range, on the opposite side of the province. The great mountain barrier to the north of our Indian Empire, known by the name of the Himalaya, consists not of one but of a series of vast ranges; the Himalaya proper includes only those mountains below the Indus and the Brahmapootra; north of the two rivers, towards Tibet and Central Asia, and parallel with the Himalaya, is the Karakoram range. The main range of the Western Himalaya terminates north of the vast amphitheatre of Kashmir at the great peak of Dayarmur, which rises to a height of 26,629 feet from sea level, and looks down on the Indus about 15 miles distant.

The *Salt* range, from which the Punjab and a large portion of the rest of India derives its salt supply, has an extreme elevation varying from 2,000 to 5,000 feet. From Pindadun Khan, on the Jhelum, it crosses the province of Jhelum to Kalabagh on the Indus, and on the other side of the river one spur goes north to join the hills of the Bunnoo and Kohát districts, while another, running south, terminates in the offshoots of the Suliman range.

The "five waters," from which the Punjab takes its name, are the Sutlej, the Beas, the Ravi, the Chenáb, and the Jhelum. These five streams descend from the mountains, and after dividing the plain into several fertile "doabs," unite and join the Indus near the south-western extremity of the Province. The Indus issues from the extreme west of the Himalaya after a north-westerly course of some 750 miles. In the upper parts of its course it is quite unnavigable, but between a point above Kalabagh just mentioned, and Sukkur in Sind, a flotilla of Government steamers ply, in addition to a large number of native craft. The famous fords of Attock, by which nearly every invading army has entered India, are about 60 miles higher up the stream than Kalabagh, on the high road to Peshawur and Afghanistan, and just below the junction of the Cabul river with the Indus. The plains of the Punjab

PUNJAB.

are vast expanses of alluvial clay and loam, worn away and washed down from the rocks of the mountain ranges to the north. They are intersected by the great rivers of the Punjab, which form the natural divisions of the country. The long and narrow strip between the Sulima range and the Indus is the Derajat; the country lying between the Indus and the Jhelum rivers is the Sind Sagur Doab; that between the Jhelum and the Chenáb, the Tcteh Doab; that between the Chenáb and Rávi, the Reechna Doab; that between the Rávi and Beás, the Bári Doab; and that between the Beás and the Sutlej, the Jullundhur Doab; the country between the Sutlej and the Jumna is not properly part of the Punjab, and includes in the northern parts the Cis-Sutlej States, and in the lower the Delhi territory. Of all these tracts the Jullundhur Doab, though the smallest, is the most fertile.

The forest tracts of the Punjab are chiefly in the interior of the Himalaya, but it is only in localities overlooking rivers, into which the logs when cut are thrown, to be carried by the stream to the plains, that they can be turned to practical account.

The average rainfall of the Province during 1868 was about 21 inches, or 2½ inches less than in 1867. The mean temperature was 75° or about 1° higher than in the previous year.

NATIVE STATES.

The Native States in feudal subordination to the Punjab Government are 34 in number, of which three only, Bhawalpore, Chamba, and Pataodi, are under the management of British officers.

Bhawalpore.

Bhawalpore comprises an area of 22,000 square miles of the north-western portion of the great desert of Rajpootana, of which only a narrow strip of eight miles average width is culturable along the northern frontier, which through its entire length of 280 miles is bounded and fertilised by the Sutlej, the Chenáb, and the Indus.

The State continues to prosper. The revenues of the year ending October 1868, were 144,317*l.*, or 30,000*l.* more than in the previous year, and the expenditure was 121,000*l.* During the year all transit duties were abolished; 75 miles of a new irrigation canal (the *Fordwáh*) were opened out, and with other works of a similar nature, afforded employment to a large number of famine labourers from Bikanír. New towns are rapidly springing up on the banks of the *Fordwáh*, and in one, Minchinábád, named after the British Resident Major Minchin, 370 shops and 110 houses were completed in less than a year. There is no rain cultivation; the country is fertile only where the inundations of the rivers or the construction of canals renews the face of the desert.

The population of the fertile portion of the territory is estimated at 354,500, and about 10,000 inhabit the isolated forts and villages in the desert. The Nawab, a minor, 10 years of age, is receiving a careful education.

Chamba.

Chamba is a mountainous tract to the north of the Kangra district, locked in on almost every side by lofty ranges. Its area is estimated at 3,216 square miles, and its population at 120,000 persons. The income of the year was 17,377*l.*, the expenditure 14,200*l.*, leaving a surplus of 3,176*l.*

Kashmír.

The Maharajah of Kashmír has continued to pursue an enlightened policy in the development of commercial intercourse with Eastern Turkistan. The obstruction and opposition on the part of the Kashmír officials, formerly complained of by Doctor Cayley, the British Resident at Leh, have ceased; in consequence of the reduction of duties the trade with Yárkand has considerably increased, while at the close of the year the Maharajah announced a further reduction of transit duties in the case of merchants proceeding by the Changchinmo route from five to four per cent. ad valorem.

In September 1868, Mr. Shaw, a tea-planter of the Kangra district, and Mr. Hayward, an officer deputed by the Royal Geographical Society, proceeded from Leh to the territories of Yakúb Kushbegi, the ruler of Káshgar, Yárkand, and Khotan. The former took with him a large consignment of tea and other merchandize. They journeyed by the Changchinmo route to Shahdulla, a fort on the southern confines of the Kushbegi's country, and were received with courtesy by the officials, but were not allowed to have any intercourse with each other. After some delay they were escorted separately to Yárkand, where they remained in honourable confinement in separate houses until February, when they were taken to Káshgar, and there remained for upwards of a month, and had each of them several separate interviews with the Kushbegi, or, as he is styled in Káshgar, the Atálik Ghazi. Neither at Yárkand nor at Káshgar were they allowed to leave their houses, except

when visiting the palace. In April they were allowed to return to Yárkand, staying for a short time *en route* at Yanghissár, a town between Káshgar and Yárkand, and were finally allowed to leave Yárkand for British territory on the 30th May. Both these gentlemen speak highly of the vigorous rule of the Atálik Ghazi and of the prospects of an opening for trade with British India; there is plenty of wealth in the country, and a large demand for tea and articles of European trade, which are at present almost exclusively supplied from Russia. They report that there is a route between Leh and Yárkand by the Changchinmo and the valleys of the Kárakash and Yárkand rivers, perfectly practicable for camels, well supplied with wood and water, and with no great physical difficulties of any kind. PUNJAB.

By solar observation and triangulation, Mr. Hayward fixed the positions of Káshgar, Yanghissár, Yárkand, and Shadula; he discovered the sources of the Yárkand and Karakash rivers, and established the fact that the Kuenluen and Karakorum are distinct ranges, and lastly he prepared a valuable map of the country between Leh and Káshgar, and a detailed account of the new routes to Yárkand.

The long standing difference in this State between the Rajah and his brothers was set at rest by the decision of Her Majesty's Government (communicated to the Government of India in a despatch dated 12th February 1869) that the Rajah Rumbheer Sing should remain in full possession of the sovereignty of the entire State, and that his brothers should receive in money or in a life tenure of lands the full value of the shares assigned to them in their father's will. Dealing justly with both parties, this decision upholds Lord Canning's assurances to the Rajah after his faithful services during the mutiny, while it only annuls the will of the father so far as that will involved the danger of an eventual division and dismemberment of the raj. Kuppoor-thulla.

The year under review was a most important one in the history of Afghanistan. It saw the complete triumph of Amir Shir Ali over his brother and rival Azim Khan, the termination of the long reign of confusion and rival factions that ensued on the death of Dost Mahomed, and the establishment on a firmer footing of the friendship and alliance which had existed previously between the British Government and the Amir. Afghanistan.

Amir Shir Ali, after his victory over Azim Khan at Panj Shahr, in August 1868, addressed friendly letters to the then Viceroy, Sir John Lawrence, expressing a desire to proceed, if need be, to Calcutta to visit him, and intimating that assistance in money and arms would be thankfully received. His overtures were favourably received. The meeting between Sir John Lawrence and the Amir was postponed, owing to the advance of Azim Khan and Abdul Rahman Khan with a large army from the north, but a donation of 60,000*l.* arrived at an opportune moment and materially assisted the fortune of the impending battle by enabling the Amir to issue the arrears of pay due to his men, and by causing numerous desertions from the enemy. On the 4th January 1869, the army of Azim Khan was completely overthrown. He and Abdul Rahman fled to British territory, but finally declining to accept the asylum offered them made their way to Persia, where Azim Khan died in October 1869.

Meanwhile Sir John Lawrence addressed a letter to Amir Shir Ali to the effect that it was the earnest desire of the Government of India to see his authority established on a basis of solidity and permanency, and to cement the bonds of friendship and alliance which ought to exist between the British power and His Highness as an independent ruler. To the donation of 60,000*l.* which had been already placed at his unreserved disposal, would be added a second sum of the same amount, as a further proof of the desire of the British Government, which feared no aggression, and which wished for no conquest, to see a strong, a just, and a merciful government established by His Highness at Cabul and throughout Afghanistan. For this the Government of India looked for no other return than abiding confidence, sincerity, and good-will.

The policy which His Excellency had advisedly pursued with regard to the affairs of Afghanistan was one on which he had entered with anxious deliberation, and which had commanded the assent and approval of Her Majesty, and as long as His Highness continued by his actions to evince a real desire for the alliance of the British Government he had nothing to apprehend in the way of a change of policy or of our interfering in the internal affairs and administration of his kingdom.

It would remain for the head of the administration to consider, in each succeeding year, what further proofs might be given of our desire to see his power consoli-

PUNJAB.

dated, and what amount of practical assistance in the shape of money or materials of war, might periodically be made over to His Highness as a testimony of our good-will, and to the furtherance of his legitimate authority.

After entering Cabul in triumph, the Amir again expressed his desire for an interview with the Viceroy, which this time no obstacle occurred to prevent. The Amir entered British territory on the 3rd March, accompanied by his son Abdulla. Leaving the bulk of his followers at Peshawur, he himself proceeded to Lahore, where he was entertained for five days by the Lieutenant-Governor. On the 26th March he reached Umballa, and on the following morning the Viceroy arrived by train from Calcutta. The Amir was received in public durbar, and after a week of reviews and other entertainments he departed the way he came, and left British territory on the 22nd April.

FRONTIER TRIBES.

The tribes inhabiting the British frontier from Hazára on the north to Sind on the south-west, belong to two distinct races; from Hazára to Dera Ismail Khan the hill tribes are the *Pathán* or Pushtu-speaking race, southward they are *Bilooch*. Both are warlike, revengeful, and predatory, but in some important respects they differ widely. While the Pathán is essentially a republican, having little reverence for the person of his chief, the Bilooch respects and obeys the head of his clan; while the Pathán is bigoted and priest-ridden, the Bilooch pays scant respect to the Syad or the Maulavi (Moulvee). The conduct of political relations with the Pathán tribes is consequently far less easy than with the Bilooches. To conciliate a Bilooch chief is, in most cases, to conciliate the whole clan; but the Pathán chief is generally the head of a dominant faction only, and friendship with his clan may be enmity with the rest, whilst priestly influence may be at work to thwart, perhaps in a few hours, the conciliatory policy of years.

The Bilooch portion of the border was quiet during the year, but the Pathán frontier was the scene of several serious outrages. It will be sufficient to mention the most important one.

Agror outrage.

The Hazára troubles commenced with an attack made on the morning of the 30th July 1868 upon a police post in Oghi, a village in the fief of Agror, a border tract on the north of the Hazára district, immediately below the lofty range of hills known as the Black Mountain. The party was repulsed, and a small force was moved up from Abbottabad. The disorder, however, became general along the upper portion of the Agror valley, and the adjacent glens. The little force was continually harassed, and it was found necessary to despatch a considerable force, completely equipped, to quell the disturbance. The force left Oghi on the 3rd October, marched up the slopes of the Black Mountain, occupied the Machai Peak, 10,200 feet above sea level, and having secured the submission of all rebellious tribes returned to British territory on the 22nd idem.

Bazoti and Utman Khail tribes.

The Orakzai group, inhabiting the hills forming the northern frontier of the Kohat district, include some 25 tribes, and can muster in all about 27,000 fighting men. The Bazoti and Utman Khail, small sections of them, muster only 500 and 800 fighting men respectively, but they are particularly difficult to deal with, because they have little or no trade to lose by a blockade, and because of their inaccessibility. Their conduct has for years been unsatisfactory.

An outrage committed on the 12th February, following on a previous one in which Capt. Ruxton, while attempting to pursue the enemy into their fastnesses, was killed, with nine men, led to prompt measures. A raid was admirably carried out by Lieut.-Colonel Keyes, while a demonstration was made simultaneously from the Peshawur side. The Oblan pass was surprised; the village of Gára, belonging to Syed Reza, the origin of all the mischief, was stormed and destroyed, the villagers having fired on our troops, and it was proved to the enemy that we were able if necessary to penetrate their most inaccessible fastnesses. The measure had its effect, and was followed by the complete submission of the offending tribes.

Civil divisions.

The Punjab is divided for administrative purposes into ten divisions, with an average area of 10,200 square miles,—into 32 districts with an average of 3,188 square miles, which are again subdivided into 132 tahsils, with an average area of 772 square miles. There are 451 magistrates of all grades, and 15,638 police to a population of upwards of 17½ millions. There are 34,462 villages at an average distance of 14 miles from the nearest court. The revenue derived from the land in 1868-69 was 1,894,741*l.*, and the gross revenue of the Province was 3,434,015*l.*

Population.

The total population was returned as 17,596,752 persons, of whom 1,141,848 are Sikhs, 6,094,759 Hindus, and 9,331,367 Mahomedans. The agricultural are to the non-agricultural classes as 9 to 8.

PUNJAB. — LEGISLATIVE.

In the presence of the exhaustive Parliamentary Blue Book, which has lately been laid on the table of the House, it will not be necessary to notice more than briefly "The Punjab Tenancy Act" which has given rise to so much diversity of opinion.

Punjab Tenancy Act.

It is an Act for "defining and amending the law relating to certain matters "connected with the tenancy of land in the Punjab," on which the Law and Practice of the Punjab were more or less uncertain.

This province was annexed in 1848, and for some years after, in determining the land settlements, the principles observed in the North-West Provinces were applied to it. Tenants who had occupied continuously for 12 years without a lease were usually declared to have a right of occupancy, and their rents were generally fixed for a term of settlement, extending from 10 to 30 years. In the Jhelum division the system was adopted of confronting the parties, and so determining the nature as well as the length of occupancy that entitled a cultivator to privileges.

In 1863 Mr. Edward Prinsep, who had been appointed Commissioner for the purpose of revising settlements, the terms of which were expiring, challenged the correctness of the records of former settlements, and expressed his strong conviction that during the Sikh times very few tenants had right of occupancy, as the landlord, it was admitted, had in those times the right of evicting any tenant.

The result of Mr. Prinsep's proceedings in three districts was that out of 60,000 tenants formerly recorded as having rights of occupancy, 46,000 were (provisionally) reduced to the state of tenants at will.

The *vexata quæstio* thus raised was for nearly four years canvassed in every possible light. To those who took the proprietors' view, and stated that no right of occupancy existed in Sikh times, that the action of Government was unjust to the proprietors, and that it was its duty even at that late hour to rectify its error, it was answered by Sir John Lawrence, and those who supported him, that the right of evicting was rarely exercised; that it was just to protect the tenants from arbitrary eviction, whose lands had increased in value owing not to outlay of capital on the part of the proprietors, but to the liberal policy of the Government; that in doing so, the British Government was merely exercising a power which it inherited from its predecessor, the Sikh government; that whether the action of the Government was right or wrong, it would be the height of injustice to disallow rights which had been recognised for 20 years, and suddenly to place the tenants in a position in which they would be at the mercy of their landlords under circumstances very advantageous to the latter.

These views were in October 1867 embodied in a draft bill which for a year more was the subject of correspondence and debates, filling a bulky folio volume. It was considered by four different committees, and discussed three times in the Legislative Council, and was finally, in a somewhat amended form, passed by the Government of India on the 21st October, 1868; but it was not for yet another year that the matter was really set at rest by a dispatch from the Secretary of State of the 28th October, 1869, replying to one from the Government of India, which transmitted a memorial from certain of the chiefs, landholders, and gentry of the Punjab petitioning against the Act. The Secretary of State in Council declared in that dispatch that the Act would not be disallowed by Her Majesty's Government, but requested that the operation of it should be watched by the Government of India, with the closest care, and that measures should be devised for affording every possible facility to all classes whose rights were affected, to prove cheaply and easily any errors which the first settlement might have involved.

It is matter of congratulation to learn on the highest and most impartial authority that events have justified the expectations of those who were convinced of the justice of the measure, and that the Act is working most satisfactorily.

Judicial Tribunals.

At the close of the year 1868 there were 526 tribunals in the Punjab (exclusive of settlement officers' courts) for the disposal of criminal, civil, and revenue cases, or about one tribunal to 33,000 persons. Of the judges 230 were Europeans, and 329 natives; 458 were stipendiary, and 101 were non-stipendiary.

Of the above courts, 43 exercised appellate as well as original powers; 10 were courts of session, while the chief court was the final appellate authority in civil and criminal cases, and acted as a court of original criminal jurisdiction in cases where European British subjects were charged with serious offences; and the Financial Commissioners exercised final appellate jurisdiction in civil suits regarding land in districts where a settlement of the land revenue was in progress.

PUNJAB.

Criminal Justice.—The number of criminal cases coming under judicial cognizance was 54,469, or 10 per cent. more than in 1867; 40 per cent. were tried by European, and 60 per cent. by native agency. Of the cases under trial during the year all were disposed of within the year but 549 cases, or 1 per cent.

It appears from the reports of the year that although judicial business enormously increased, it was promptly disposed of,—in Sessions Courts far more promptly than in 1867,—whilst the *quality* is steadily improving. This result is attributed to the excellent supervision maintained by the judges of the chief court, who, by the care and dispatch with which they dispose of their own heavy files, afford a good example to subordinate courts.

Civil Justice.—The number of civil suits amounted to 159,550, or 14,922 more than the number instituted in 1867, and this notwithstanding the enhanced rate of stamp duty on plaints. The increase occurred chiefly in suits for recovery of money due on contract, which rose from 90,697 in 1867 to 105,506 in 1868, and is partly attributed to the operation of the new law of limitation which came into force in the Punjab on 1st January 1869. Allowing for these exceptional causes of increase, it may nevertheless be said that the enhanced stamp duties had *not* the effect of unduly repressing resort to courts of justice, in matters connected with the ordinary transactions of life. Of 164,635 cases on the file (including those pending from the previous year) 151,827 were disposed of. This result is satisfactory, but fears are expressed that pressure of judicial work is beginning to interfere with the important executive functions of the officers employed. Since 1862, when the existing administrative establishments of the province were fixed, the annual number of judicial cases has increased from 99,852 civil suits and 34,600 criminal cases to 151,827 civil suits and 52,760 criminal suits, while at the same time procedure has been elaborated, and executive business has enormously increased.

The number of appeals decreased considerably, in 1868 their number was 12,340 or 15 per cent. less than in 1867, and about 35 per cent. less than in 1866. This is attributed partly to enhanced rates of stamp duty and process fees, and partly to the operation of the Punjab Appeals Act of 1868, which restricted the license to appeal by ruling that where two courts concurred in a matter of fact, no second appeal should be allowed.

Registration. The Registration Act was introduced into the Punjab on the 1st January 1868, and the total number of deeds registered during the year was 128,488.

Gaols. A new Gaol at Dera Gházi Khan was added during the year, making the total number in the province 27. The total number of prisoners was 38,656, or 6,000 more than in 1867; the daily average was 10,883, or about 900 more. The mortality for the year was the smallest ever known. Calculated on the total prison population it was 0·36 per cent., or on the daily average number it was 1·20. In 1867 the rate of mortality was more than double. The cost of each prisoner was 6*l.* 3*s.* 4*d.* in 1868, against 5*l.* 9*s.* 2*d.* in 1867.

Police. The police force of the province amounted during the year to 20,493 men and 618 officers, of whom 74 were European and 544 native. There was thus one policeman to 854 persons, and to a little less than five square miles. The total cost was 300,550*l.*, of which 253,432*l.* was defrayed from imperial revenues, and 45,603*l.* from municipal funds, and the cost per head of population was about $3\frac{3}{4}d.$ When it is considered that in England there is one policeman to 889 persons, and in Ireland one to 420 persons; that in England the annual cost of the police falls at the rate of upwards of 2*s.* per head of population, and in Ireland at a still higher figure; and further that the police in the Punjab are employed on duties the cost of which is in England not charged to police estimates, such as escorting treasure, furnishing personal guards to officers on tour, &c., while on the north-west frontier they perform the duties of militia, it must be admitted that the strength and cost of the police in the Punjab are anything but extravagant.

Crime. There was in this province, as in others where scarcity prevailed, a large increase of crime. The number of offences of every kind reported was 70,880, or nearly 8,000 more than in 1867. The bulk of the increase occurred in offences against property, and it is to be regretted that the cases of murder rose from 287 to 332. Of these murders 163 were committed in the six Trans-Indus districts, and as many as 80 in the Peshawur district alone. The peculiar circumstances which render frontier districts specially rife in crimes of assassination have before been noticed; an armed population within and without the border, full of fierce enmities and factions; a code of honour which regards murder in revenge for injury a righteous act; a border close at hand for flight; a people more inclined to sympathise with

the criminal than to assist the officers of justice; added to which the police force has, within the last few years, been reduced, on financial considerations. Under these circumstances the Lieutenant-Governor has submitted a scheme for improving the police arrangements of the Peshawur district, by which, if it is approved by the Government of India, the influential tribes of the border will be enlisted on the side of order, as a supplemental militia force. PUNJAB.

Of the 70,880 offences of every kind admitted to have occurred, 48,627 were brought to trial, and in 36,125 cases convictions were obtained; and out of 122,056 persons arrested, 71,072 were convicted.

The troops of the Bengal army quartered in the Punjab mustered on the 31st March 1869, 16,592 British and 20,405 native soldiers, making a total of 36,771 men, or about 8,000 more than in 1867–68. The largest force is quartered at Peshâwur, where there were 1,978 British, and 3,550 native troops. MILITARY.

In addition to these troops, which are under the orders of the Commander-in-Chief, there is the Punjab Frontier Force, numbering 12,489 men of all ranks, with 20 guns, which is under the control of the Lieutenant-Governor of the Province.

The imperial revenues of the province realised the gross sum of 3,434,015*l.*, or about 25,000*l.* less than in 1867–68; and the surplus, after deducting "cost of collection" &c. and "expenditure," was 1,051,904*l.*, a sum less by 297,282*l.* than in the previous year. The more important items of receipt and expenditure are given in the margin, and it remains to notice some others in which, comparing them with the figures of the previous year, there was a considerable difference. Forests yielded 34,448*l.*, or 6,400*l.* more than in 1867–68, owing to larger sales of timber and fuel. The receipts under the head of law and justice (88,037*l.*), exhibit an increase of 23,200*l.*, an increase chiefly due to the fees realised under the Registration Act, which was extended to the Punjab on the 1st January 1868. On the other hand the receipts of the Customs Department fell from 94,208*l.* to 58,098*l.*, owing, as might have been expected in a season of scarcity, to a great decrease in the export duty on sugar; and the Certificate Tax of 1868 produced 26,224*l.*, but little more than half the amount realised under the Licence Tax of 1867. FINANCE.

—	1867–68.	1868–69.	Increase.	Decrease.
Gross receipts :—	£	£	£	£
Land Revenue	1,928,182	1,894,741	—	33,441
Salt	792,538	820,475	27,937	—
Stamps	171,285	199,807	28,522	—
Public Works, Miscellaneous	168,036	143,375	—	24,661
Other Heads	399,634	375,617	—	24,017
Total	£3,459,675	£3,434,015	Decrease.	£25,660
Charges against income	£427,715	£461,502	—	—
Net Receipts	£3,031,960	£2,973,513	Decrease.	£58,447
Expenditure :—	£	£	£	
Public Works, Ordinary	862,777	878,857	16,080	—
Police	302,689	314,560	11,871	—
Law and Justice	190,454	237,371	46,917	—
Administration	112,165	132,387	20,222	—
Other Heads	214,689	357,434	142,745	—
Total Expenditure excluding charges.	£1,682,774	£1,920,609	Increase.	£237,835
Surplus	£1,349,186	£1,051,904	Decrease.	£297,282

It will be seen that the expenditure of the province shows a considerable increase. In addition to the figures in the margin it should be mentioned that the political charges of the year, amounting to 81,748*l.*, include an extraordinary charge of about 70,000*l.* in connexion with the Amir of Cabul. Public Works Extraordinary cost 61,526*l.*, or 50,000*l.* more than in 1867–68. The sum of 64,102*l.* was allotted to Education, Science, and Art.

The Engineering Staff of the Public Works Department consisted of one chief engineer, three superintending engineers, 25 executive engineers, and 41 assistant-engineers; and the Staff of the Irrigation Department comprised one chief engineer, three superintending, 23 executive, and 32 assistant-engineers. The Railway and Forest Departments are distinct. PUBLIC WORKS.

Military works consumed nearly 390,000*l.* of the total expenditure; 187,640*l.* were spent on roads, &c.; 75,000*l.* on irrigation works, and 53,223*l.* on civil buildings.

With regard to the first item, "Military Works," several works have been executed at outposts on the frontier, and considerable progress was made in providing accommodation for European troops, and in improving the fort of Delhi.

The most important metalled road is the trunk line from Delhi to Lahore, and thence on to Peshâwur; and of the unmetalled roads the more important are those

PUNJAB.

in the hills, in which good progress was made. Large parties of British soldiers continue to be employed in road work where it is possible, and with the happiest results.

The project for remodelling the Bári Doab Canal was commenced on the 1st August 1868, the preliminary surveys and estimates connected with the first 37 miles of the Sirhind Canal were completed, and actual work commenced in September 1869; and the Western Jumna Canal was kept in repair and improved. These three are the chief works of irrigation in the Punjab; the others are enumerated in the accompanying tabulated statement, which gives the canal income for the year under review.

	£
Bári Doab Canal -	78,066
Upper Sutlej Canals -	5,183
Lower Sutlej Canals -	12,199
Indus Canals -	5,194
Western Jumna Canal	121,388
Delhi and Gurgaon Works -	170
Total -	£ 222,200

Agricultural.

Owing to the scanty rainfall there was a decrease of 475,920 acres in spring cultivation, and of 1,619,041 acres in the autumn crop. From the same cause there was a great loss of cattle during the year, amounting to about 450,000. There are about 150,000 camels in the province.

In connexion with this subject mention should not be omitted of the rhea or china grass, a plant which has been introduced into the province from Assam, and thrives luxuriantly in the Kangra district. It possesses a valuable fibre for which there is an unlimited demand in England, but owing to the want of suitable machinery for detaching the fibre from the stem the development of this important trade is delayed. A reward of 5,000*l.* has been offered by the Secretary of State to the inventor whose ingenuity most completely supplies the want.

Mines and Quarries.

The principal metallic products of the Punjab are iron, copper, antimony, lead, and gold. The iron ores are produced along its north-eastern mountain frontier, in the low hills of the Sulemán range, and to some extent in the salt range; they are mostly magnetic oxides of singular purity. The selling price of native manufactured iron varies from 10*s.* to 16*s.* per maund of 80 lbs. Gold occurs only in sand washed down by the rivers, and the amount realised is insignificant.

Salt.

The principal beds of rock salt are found in the southern slopes of the salt range in beds of from 150 to 200 feet in thickness. The mines are of two kinds; one where the salt rock is approached by galleries and excavations; the other where, as at Kalabagh, the salt is at the surface, and is quarried rather than mined. The expense of excavation is borne by the Government, and the salt is sold to traders at the mines for six shillings per maund. The total out-turn during 1868–69 was 1,307,378 maunds, valued at 376,580*l.*; in the previous year the out-turn was 1,176,237, valued at 352,871*l.* To prevent smuggling the salt is excavated at five places only, though it exists in large quantities elsewhere in the salt range. Other varieties of salt exist in the Punjab, as saltpetre, alum, &c. One called *Kalar* or *Reh* deserves notice. It is an efflorescent sulphate of soda, so prevalent in some parts of the country as to destroy cultivation; it has not yet been utilised, nor have the efforts which have been made from time to time to discover a cheap method of neutralising its evil effects on the soil been successful. Borax is not produced in the Punjab, but is imported from Thibet and Ladakh.

Trade.

The value of the imports and exports of the province during the year is estimated at 5,268,522*l.* The most bulky import was grain, of which 1,025,145 maunds entered the province; then came sugar (815,017 maunds). Cotton and cotton cloths were imported to the extent of 40,000 and 47,000 maunds. The largest export was sugar (1,044,151 maunds).

Trade with Central Asia.

A large increase of trade has followed the Maharajah's reduction of the exorbitant duties levied on goods passing between Yárkand and British territory, to an uniform duty of five per cent. *ad valorem*. The value of the merchandise passing through the north of Leh has increased in one year from 30,000*l.* to 50,000*l.*; and the trade which has hitherto been in the hands of the agents of the Kashmir government and petty traders is now embarked in by several merchants of substance from the Punjab.

The two largest commercial towns of the Punjab are Delhi and Umritsur. The imports and exports of the former (excluding railway traffic) are valued at three and a quarter millions, and those of the latter at more than a million and a half sterling. Umballa comes next with a trade estimated at rather more than a million and a quarter.

Education.

There were in the Punjab, in 1868–69, 1,805 Government educational institutions; 817 grant-in-aid institutions; and 5,139 unaided indigenous schools. The average attendance was 141,665, or one student to 123 persons, and an increase of 10,796.

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The average annual cost of educating each pupil varied from 10*l.* in Government colleges to 3*l.* 1*s.* 4*d.* in schools of the lower class. In the Lahore Mission College the cost of each pupil was about 48*l.*

Lahore University College.

The strenuous efforts of those interested to found an University for Northern India have resulted in the establishment of the "Lahore University College," with a governing body or senate presided over by the Lieutenant Governor. In its support the Government will grant an equivalent to the income from subscriptions and endowments, up to 2,100*l.* per annum, and has expressed its readiness to reconsider its present refusal to confer upon it the coveted title of "University," and the power to confer degrees.

Besides this "University College" there is a College at Lahore and one at Delhi, in both of which the progress is reported to be satisfactory, and at Lahore there is also a medical school.

Of female education it is said that although there has been a falling off in the aggregate number of female schools and scholars, the prospects of female education have greatly improved, and it may be considered that all prejudices are now in a fair way of being overcome, and that female education has been placed upon a sound basis with every prospect of future satisfactory development.

Scientific.

There is a central museum at Lahore, to which large collections were added during the year. A committee has been appointed to explore the country round Peshawur, with a view of collecting the remains of ancient sculpture and carvings, both ornamental and representative of mythic scenes.

The building was visited during the year by 33,800 persons.

Literary.

At the Government Book Depôt 74,324 books valued at 2,355*l.* were sold at cost price; 26,993 were given as prizes. In the Educational Press 53,335 vernacular books were printed, a translation of the "Student's Hume," and the preparation of a School History of India are in progress.

At the close of the year there were two English and 13 vernacular papers.

Hospitals.

The institutions for affording medical relief were during the year, one hospital attached to the Medical School at Lahore; 92 dispensaries; asylums for the insane at Lahore and Delhi, and for lepers in various towns; and in addition to these there is a scheme whereby the native practitioners of the country are utilised and medical relief is carried into the interior of districts. The idea originated with Lieut.-Colonel Mercer who observed that a large proportion of the population was almost entirely without medical relief in times of sickness. These *hakims*, though mostly being ignorant and practising an erroneous system of medicine, have often a good knowledge of herbs and possess the confidence of the people. They are paid by a voluntary cess.

The famine.

The experience of the Punjab was very much that of the other provinces of India where the drought was severe, and as elsewhere Government were on the alert, issuing instructions to the district officers, organising a system of relief operations, and in every way carrying out the merciful policy which the late scarcity has completely developed, nor were private individuals wanting in generosity.

In March 1869 rain fell plentifully all over the province, and fear of famine was at an end, but to the south of the Sutlej great distress continued to prevail to the close of the year.

Great praise is bestowed on the Commissioners and Deputy Commissioners of divisions and districts, who were prudent and energetic, and spared no efforts. The total expenditure incurred on famine relief was 40,627*l.*

FEUDATORY STATES.

FEUDATORY STATES.

"The last vestiges of the Royal House of Delhi, from which for our own convenience we have long been content to accept a vicarious authority, have been swept away. The last pretender to the representation of the Peishwa has disappeared. The Crown of England stands forth the unquestioned ruler and paramount power in all India, and is for the first time brought face to face with its feudatories. There is a reality in the suzerainty of the Sovereign of England which has never existed before, and which is not only felt but eagerly acknowledged by the chiefs."

Written at the conclusion of the great Mutiny, this despatch of Lord Canning's clearly explained the change which that momentous event had brought about, and resolved the question of the position of the feudatory chiefs of India who had hitherto acknowledged the nominal sovereignty of the Emperor of the Moguls or of the Mahratta Peishwa. Their allegiance was, in fact, thenceforth transferred to the

FEUDATORY STATES.

Queen of England; and the same despatch decreed what Hindoo law had never absolutely ordained, that adoption to a *raj* should always be recognised by the paramount power, subject to the two conditions of loyalty to the Crown, and fidelity to all engagements to the British Government. The sunnud or patent confirming this decree was issued on the 11th March 1862, and a similar patent was given to Mahomedan princes.

To 153 feudatories is this right of adoption guaranteed. Leaving out Mysore, which during the Maharajah's minority, is administered by the British Government, and Berar, which is administered for the Nizam, these nobles govern a population and area larger than those of France and Belgium. Their troops far outnumber our Sepoy army; their ordnance is equal in number to ours; their wealth is enormous, and their revenues are personal. From 44 millions of people covering 579,277 square miles they draw a revenue of 12¼ millions sterling every year, irrespective of the very large incomes of the nobles, who are in their turn feudatory to them. The 12 wealthiest princes alone enjoy an annual revenue of seven millions sterling derived from 26½ millions of people; of these 12, the Nizam of Hyderabad has an income of 2,150,000*l.*, and the Maharajah Sindhia one of 1,110,910*l.*, the remainder drawing incomes varying from 240,000*l.* to 600,000*l.*

The tributes and contributions from Native States in 1867–68 amounted to 689,286*l.* If against this is set the cost of the political agencies, &c., amounting to 241,801*l.*, and the allowances and assignments under treaties and engagements amounting to 1,873,072*l.*, and raising the total to 2,114,872*l.*, it will be seen that the direct cost of the Feudatory States to the Government of India is a million and a half sterling.

Rajpootana Agency.

The territory or collection of independent Native States known by the name of Rajpootana resembles a large square set up cornerwise, of which the northern angle approaches the Sutlej; the southern is formed by Guzerat and Sindhia's territory on the west and east, while the eastern corner abuts on Agra, and the western rests on Sindh. It has an area of 123,000 square miles, and a population estimated at 10 millions. It contains 18 principalties, of which 15 are Rajpoot; two are Jat, Bhurtpore, and Dholepore; and one is Mahomedan, Tonk; and the revenue derived from the entire territory is estimated roughly at 3,340,000*l.*

Rajpootana is divided by natural features into four great sections:—(1) The desert regions to the north and west of the Aravulli, comprising more than half of the entire territory within the agency, and comprehending Marwar, Bikaneer, Jessulmere, and Shekhawuttee; (2) the hill division, including the greater part of Meywar and Banswarra, Doongurpore, Pertabgurh, and Serohi; (3) the south-eastern division of Haraoti, including Boondee, Kotah, and Jhallawar; and (4) Eastern and Central Rajpootana, extending from Ulwur to Kerowlee.

The 18 principalities are supervised by the Governor-General's agent, with a staff of political agents and assistants, amounting in all to 20 officers. Their united salaries and the other purely executive charges of the agency amount to nearly 37,000*l.*

The chiefs exercise supreme civil and criminal jurisdiction within the limits of their respective States. They are restrained by no check save the moral influence and fear of the British Government. Disputes among themselves are adjudicated by the Courts of Vakeels, consisting of one upper court and four lower courts, at which when British interests are concerned, or at the request of the members, or in cases of importance, the agent of the Governor-General or one of his subordinate officers takes his seat as president, and has a casting vote.

The famine which desolated Rajpootana more completely than any other part of India, and the general backwardness of this cluster of independent Native States, owing partly to misrule, partly to the very unsatisfactory relations of the chiefs with their thakoors or nobles, are the two facts that stand out prominently in reviewing the events of the year.

The famine will be felt for many years to come. It surpassed in severity even that of 1813, which was the most calamitous in Rajpootana of which there is record, for whereas then grain failed, there was plenty of grass, and the herds were saved; but in 1869 the scarcity of grain, severe though it was, was trifling compared with that of forage. It is believed that three-fourths of the cattle have died or been sold out of the country, and the most calamitous mortality among the people was only averted by the facilities which the railway lines afforded for the transit of grain. The famine, though general throughout Rajpootana, was most severely felt in Marwar. Here scarcity of grain is common, and the people find relief by

emigrating to the neighbouring States, returning with the approach of the rainy season; but on the present occasion their usual refuge failed them; their neighbours were afflicted equally with themselves. Malwa is more than ever given up to opium, and dispersing in various directions streams of emigrants poured northwards to Delhi and the Punjaub, westwards to Guzerat, while from the south-eastern portions of the country multitudes passed into the Central Provinces, numbers of them dying by the way. "Some are left to be devoured by dogs, and "others are buried a few inches below the surface of the ground, and always "in nullah beds, that the remains may be swept down by rain to the sacred "rivers."

"It is difficult to estimate the number who emigrated. The northern portion "of Marwar is deserted. In the more fertile portions the towns are still inhabited, "but the villages are as villages of the dead; only a few women and one or two old "men being left to look after the houses." "There is no doubt that the popula-"tion of the country will be permanently diminished by one-fourth. Many will "settle in the countries to which they have emigrated, and the misrule and want "of good government which has prevailed for the last few years in Marwar will "deter others from coming back." The failure of the grass obliged the people to take with them the greater number of their cattle. Of $2\frac{1}{4}$ million head of cattle in Marwar, nine-tenths, it is estimated, were taken away by the departing emigrants. The one-tenth that remained may be said to have died off, while an almost equal mortality appears to have followed the herds. Looking to the future the prospect was gloomy. "The cattle left in the country are not sufficient to plough one-tenth "part of the land usually sown in the Khureef. The cattle with the returning "emigrants will not arrive till the new grass is sprouted, too late for the season's "sowings, excepting of vetches and inferior grains, the produce from which will not "compensate for the drain on the stocks caused by the demand for seed and the "extra number of mouths; moreover, there is little hope of import of grain from "neighbouring countries, and each State must depend on the stock she herself "holds."

It is pleasing to learn that the chiefs have, as a rule, done all in their power to relieve the sufferings of the people by the remission of taxes, and by the removal of the prohibitive restrictions on grain which, from an erroneous conception of their duty to their subjects, they at first imposed when scarcity showed itself. In this enlightened policy the lead was taken by the Maharajah of Jeypore, who has shown himself to be the most advanced in the cause of progress of all his countrymen. His firm support has overcome the opposition of the conservative thakoors and State officials to the recently established "Council." This body, which aids His Highness in both a consultive and executive capacity, has of course not been in existence long enough to become perfect, but it has already displayed a marked superiority over the former Government, and both in devising and carrying out reforms, and in the despatch of business has gained the praise of the Political Agent. Indeed the progress of the State of Jeypore, during the past three or four years particularly, is the subject of special remark on his part.

As in the other States of Rajpootana famine here also pressed heavily. In the most favoured localities the yield was about one-quarter of the average, while in others it was even less. The Maharajah's generosity during the crisis was not confined to the removal of the transit duties on grain, though as it was entirely opposed to long established custom, this measure deserves the largest share of praise; famine works were instituted by the Durbar; consideration was paid to the helpless poor and the aged and infirm. The charity shown by individuals was also most praiseworthy. The Maharajah's relief measures received the thanks of Government, and the reward of an increase to his salute from 17 to 19 guns.

As with the other States it is difficult to ascertain the revenue of Jeypore. The net receipts for the year are stated to be 400,000*l.*, but the average income is valued at 500,000*l.*

There are 294 schools of all kinds, and in the one female school that as yet exists the number of pupils rose from 35 to 160 during the year, an increase that is encouraging when it is considered that the prejudice in the minds of the people against female education is still strong.

Among public works in progress perhaps the most noticeable is the public garden which is being created by the Maharajah, and which he declares shall be second to none in India. It will be divided into botanical and zoological sections, and will be furnished with an aviary, band stand, fountains, &c.

FEUDATORY STATES.

As a further proof of the advanced views of the Maharajah a Social Science Congress was inaugurated in March 1869 in the presence of His Highness, and was opened with an address from Dr. Valentine, the Vice-President, who has the credit of suggesting this as well as many other useful projects for the social and moral advancement of the people. Briefly stated, the objects of the society are the advancement and diffusion of sanitary science, the improvements of agriculture and the agricultural classes, the spread of education, the formation of classes for the study of the higher branches of mental and physical science, a regular fortnightly meeting for lecture and conversazione, the interchange of reports and information with other societies of a like nature, and the publication of newspapers. The Political Agent says of the society that, though it may not accomplish all its intentions, the encouragement and cordial support which it has already met with from the chiefs of the State will go far to strengthen the Maharajah's hands in carrying out measures for the good of the people which, without their co-operation, would be surrounded by almost inconceivable difficulties, while it will at the same time teach the thakoors the important lesson that it is only by so co-operating and personally engaging in the work they can ever possibly expect to have reforms carried out within their own communities.

Bhurtpore.

In the year under the review the Maharajah of Bhurtpore, whose State has been 16 years under British management, attained his majority, and was invested with the direct government of the country. The young chief has received a far more liberal education than has hitherto been accorded to youths of his rank and position. He has travelled a great deal, his ideas and opinions are advanced, and his knowledge of foreign countries is extensive. He is active in his habits, an excellent horseman, and fond of out-door exercise, and, from constantly accompanying the Political Agent when out in camp, he is well acquainted with every portion of the State and with the wants and conditions of the people over whom he is now called upon to rule.

In a Report that professes to be simply historical some interesting suggestions thrown out by Captain Walter, the Political Agent, may yet perhaps find a place, bearing as they do upon the most important question of the raising the influence of the aristocracy of India. He says, " I do not think that we have yet thoroughly " fathomed the great duty that we owe to our feudatories. The path of civilisation " is making rapid progress over almost every part of British India ; the sons of " some of the poorest natives of the country receive, as a rule, a more liberal " education than those of the aristocracy. If this continues much longer it is not " difficult, however much we may desire to uphold and perpetuate the dynasties of " our Native allies, to fortell what the final result will be. To ensure to the sons " of the aristocracy of the country a liberal and enlightened education we must, " first of all, establish an *Eton* in India. We require a college on an extensive " scale, with ample accommodation for a large number of pupils, and the followers, " few in number, who would accompany them. A complete staff of thoroughly " educated English gentlemen, not mere bookworms, but men fond of field sports " and out-door exercise, would be necessary, and with these should be associated " the *élite* of the native gentlemen belonging to the educational department. The " holidays should be spent in constant travel all over the continent of India, with " an occasional visit to their own homes.

" Many will say that such a scheme is impossible. I admit that it is surrounded " with difficulties, but I do not think that they are insuperable. If we desire to " raise the chiefs of India to the standard which they must attain to in order to " keep pace with the ever-advancing spirit of the age, if we wish to make clear to " them that our only object is to perpetuate their dynasties and make them worthy " feudatories of the Crown of England, we must place within their reach greater " facilities for bestowing on their sons a better education than they can now " possibly obtain. Then and not till then can we hope to see the Native princes " of India occupy the position they ought to hold as the promoters of peace, " prosperity, and progress among their own people, and the hearty supporters of " British authority and power."

Central India Agency.

The Central India Agency consists of three great divisions. (1) The north-eastern, comprising Rewah and Bundelkund ; (2) the northern, consisting entirely of the territories of Scindia and his feudatories, and comprising the northern and central districts of Gwalior ; and (3) the south-western, or Malwa, comprising Scindia's Malwa districts, the extensive territories of Holkar and Bhopal, some

smaller States, several feudatories of Scindia and Holkar, and a vast number of mediatised chiefs. FEUDATORY STATES.

Speaking approximately, the area of these three divisions is 83,600 square miles, the population amounts to 7,670,000, and the revenue to 2,612,000*l.*

In the entire Agency there are 71 States, of which four are principal, 23 secondary, and 44 petty. Only seven chiefs have supreme jurisdiction within their States. In all the other States the supreme jurisdiction rests with the political officers, who also decide all heinous cases in the petty chiefships.

Here, as in Rajpootana, there is an agent for the Governor-General, with a staff of political agents and assistants, amounting in all to 18 officers, whose salaries and the purely executive charges of the agency amount to 33,931*l.* Deducting the salaries of three superintendents paid by Native States, the total charge to the British Government is a little more than 33,000*l.*

The State of Bhopal stands pre-eminent among the Native Principalities of India for fidelity to the British Government and for advancement in the cause of civilisation and good government; so that it was a source of real regret when Her Highness the Secunder Begum, who had held the reins of power for more than 20 years, died on the 30th October 1868. Bhopal.

The notification which was issued by the Governor-General in Council on the receipt of the intelligence fully expresses the appreciation entertained by the Supreme Government of her fidelity and her many virtues. After recording the profound regret with which the intelligence of her demise was received, the notification continues:—"Her Highness had conducted the administration of this "Principality since the year 1847, when she was first appointed Regent, with "ability and success until the day of her decease. In the early years of her rule "she improved the system by which the revenue of the State is collected, "abolished monoplies, regulated the mint, reorganised the police, and gradually "increased the public revenue, while she effectually diminished the public debt. "In later times, by her support of male and female education, by her superintendence "of works intended to supply her capital with pure and wholesome water, by the "construction of serais and roads, and by other improvements, she gave convincing "indications of real and abiding interest in the progress of her people and in the "prosperity of her country.

"Her relations with the representative of the British Government at her capital "had been for a long time established on a sound and satisfactory basis, and she "was on terms of friendship with the rulers of neighbouring States.

"But it was by her firm conduct during the great Mutiny that she esta-"blished a more direct title to the acknowledgments of the Head of the "Administration.

"Her unswerving fidelity, her skill in the management of affairs at an important "crisis, the bold front which she presented to the enemies of the British power, "and the vigilance with which she watched over the preservation of Englishmen, "were acknowledged by Lord Canning in open Durbar, in terms of deserving "praise and commendation; and the gratitude of the British Government was "further evinced by a grant of territory, which its owner had justly forfeited for "open rebellion, by a recognition of the right of succession according to the custom "of the Principality and the Mahomedan law, and by the bestowal of one of "those titles which the Sovereign of Great Britain, as the fountain of honour, has "instituted to reward good services performed in India either by the natives of "the country, or by the British servants of the Crown."

His Excellency took this opportunity of appealing to the example left by the late Begum as a proof that women in Oriental nations are fully capable of conducting public affairs with discretion and with dignity. He expressed his earnest hope that the administration of Bhopal might be carried on on the same sound principles by her daughter and successor the Begum Shah Jehan, and that the chiefs and rulers of the Native States would endeavour to imitate the example which the deceased had set before them, of hearty co-operation with the British authorities, of zeal and fidelity to the interests of the paramount power, and of that conscientious and earnest discharge of administrative functions which never failed ultimately to conduce both to the welfare of the community and to the honour and stability of the prince.

The Political Agent, Major Osborne, gives an account of her illness and last moments. Feeling she could not last much longer, she spoke as follows:—I wish "the Government to be informed that I have always been thoroughly loyal to

FEUDATORY STATES.

" Her Majesty's Government; my loyalty having been acknowledged by the " Government has given me more pleasure than the presentation of millions of " money. Her Majesty will find every true descendant of mine will be thoroughly " faithful and loyal to her throne; and as I am now about to die, I should wish " Her Most Gracious Majesty Queen Victoria to be informed that one of my last " wishes on earth was for the welfare of herself, her family, and her throne." To Major Osborne she said that he had always been a true and faithful friend to her, and she trusted that he would be an equally good friend to her daughter and her family.

Her Highness the Shah Jehan was installed Begum on the 16th December. The late Begum had a year and a half before her death entrusted to her some portion of the administration of the State, and there is every reason to believe that the daughter will follow in the steps of the mother.

Ali Rajpore.

Ali Rajpore is a small independent State on the high road between Malwa and Guzerat, having for its southern boundary the Nerbudda river. It has been found necessary, owing to the total unfitness of the chief, Gungades, to rule, and the consequent confusion that reigned throughout the country, to take the administration from him and place it in the hands of a native superintendent acting under the orders of the Bheel agent. From all quarters and sources there was but one cry, that there was not even a semblance of justice obtainable in the State; murders were frequent, and went unpunished, the country was a refuge for lawless and turbulent wild tribes, and consequently a troublesome neighbour; and the State was very much in debt.

The revenues of Ali Rajpore are capable of great expansion; at present sapped and mortgaged and farmed, they may not exceed 5,000*l.* a year. The brother of the deposed chief will be associated with the superintendent, and thus trained for the duties which will ultimately be his as chief of the State.

MYSORE.

MYSORE.

On the fall of the usurper Tippoo in 1799 at Seringapatam and the partition of his territories, the province of Mysore was restored to the family of its former Hindoo rulers in the person of the late Maharajah, then a child. During his minority the government was carried on by a commission of British officers, and from 1811 to 1832 by the Maharajah himself, under whose rule, however, the country was so mismanaged, that it was found necessary to revert to the old system. The late Maharajah's young son by adoption was recognised by the British Government on his father's death, and he is now receiving careful education under Colonel Malleson, which it is hoped will fit him for the high position that it is the wish of the Supreme Power he should occupy as ruler of this large and important province.

Mysore, forming part of the great table-land of peninsular India, is bounded on the north by Khandeish, and on every other side by districts of the Madras presidency. Its length is 250 miles from north to south, its extreme breadth 238 miles, and it has an area smaller than that of Bavaria, 27,000 square miles. Its population numbers four millions.

The chief authority of the province is the Chief Commissioner, who has also under his administration the little province of Coorg, 2,400 square miles.

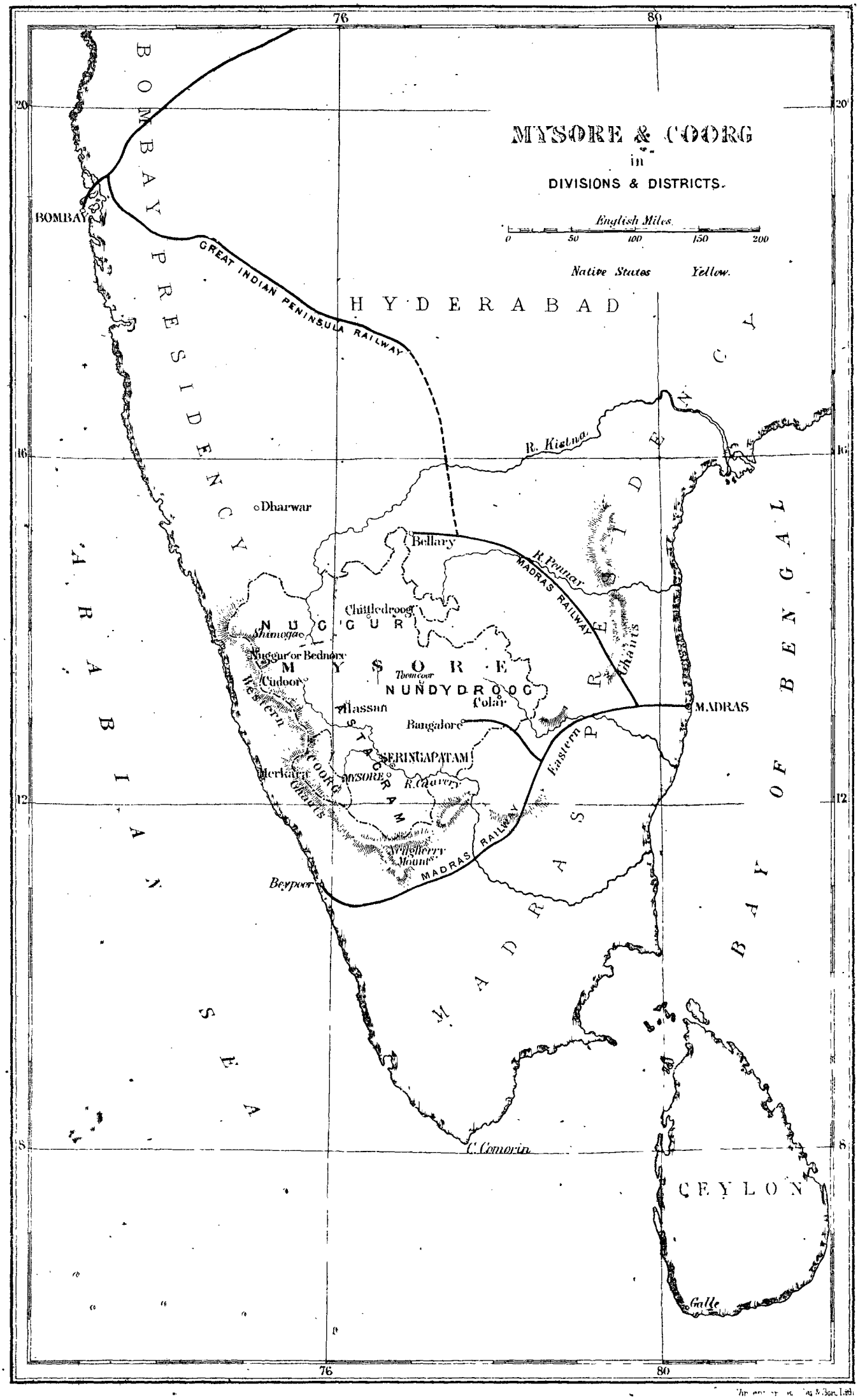
Mysore and Coorg are the great coffee producing districts of India, and there is also a considerable trade in silk, which has of late been affected by the disease in the silkworm.

JUDICIAL.

The apparent return to a more favourable series of seasons, proved by a material fall in the prices of the necessaries of life, greatly diminished crime throughout the Province. The dearth which affected other parts of India happily did not visit Mysore, and although the agriculturists threw up much land, owing to the selling rates of grain not being remunerative, the mass of the population was in comparatively easy circumstances. Hence, while criminal offences diminished, civil litigation increased.

Criminal Justice.—The total number of cases decided in the year was 13,529, and 35,762 persons were dealt with, against 39,910 in 1867. The increased proportion of acquittals to convictions is attributed to the inefficiency of the police and to the greater care with which evidence is sifted in trials. It seems to be agreed that the state of the police is unsatisfactory, and that their regular organisation and European superintendence is indispensable.

Civil Justice.—The civil suits filed rose from 13,455 in 1867 to 14,702; while their aggregate value was less, owing to the tendency of the new Stamp Act to


MYSORE & COORG
in
DIVISIONS & DISTRICTS.
English Miles.
0 50 100 150 200
Native States Yellow.
BOMBAY PRESIDENCY
HYDERABAD
GREAT INDIAN PENINSULA RAILWAY
BOMBAY
R. Kistna
Dharwar
Bellary
R. Pennar
MADRAS RAILWAY
Chittledroog
NUGGUR
Shimoga
Nuggur or Bednore
MYSORE
Cudoor
Thomcoor
NUNDYDROOG
Colar
Hassan
Bangalore
MADRAS
Western Ghauts
Eastern Ghauts
SERINGAPATAM
Merkara
COORG
MYSORE
R. Cauvery
Neugherry Mounts
MADRAS RAILWAY
Beypoor
ARABIAN SEA
BAY OF BENGAL
MADRAS PRESIDENCY
C. Comorin
CEYLON
Galle
76
80
20
16
12
8

check the institution of large claims, which are now preferred by two classes only —the rich, who can well afford the stamp duty, and the poor, who can sue in *formâ pauperis*. The popularity of the Court of Small Causes at Bangalore is evidenced by the large number of cases decided in it. MYSORE.

There are eight gaols in Mysore, including the central gaol at Bangalore, which receives special mention for its excellent management. The average number of prisoners in all the gaols fell from 2,814 in 1867 to 2,349 in the year under review, and their cost was 17,096*l.*, or more than 5,000*l.* less than in 1867, giving a net cost for each prisoner of 7*l.* 5*s.* 3*d.*; there was an increased return from manufactures, and an improvement of discipline. Gaols.

The returns of the Registration Department for 1868 show a falling off, which seems to be attributable to the famine of 1866 having occasioned much transfer of property and swelled the returns of 1867. Registration.

The total demand for the year 1868–69 was 1,165,300*l.* The balance outstanding at the close of the year was 4 per cent. only of the whole. It compares favourably with the outstandings of the two previous years, which were 14½ and 8 per cent.; and is an indication of the facility with which the revenue can be collected, in spite of a late harvest. The land yielded 735,318*l.*, or 24,500*l.* less than in the exceptionally favourable year 1867–68. This decline resulted principally from a cause which has already been noticed, the relinquishment of lands which had been cultivated when higher prices prevailed; the ryot, with the timidity common to his class, preferring to reduce his holding rather than risk the consequences of a state of the market which left him a small margin of profit. REVENUE.

The coffee plantations of the Province are situated almost wholly in the Shimoga, Kadoor, and Hassan districts. They are 21,538 in number, and cover 107,971 acres; 263 plantations belong to Europeans, the remainder to natives, the average size of the former being 121½ acres, of the latter 3½ acres per garden. Coffee.

Coffee exported during the year amounted to 5,220 tons, and yielded an excise duty of 10,440*l.* These figures are somewhat smaller than those of 1867–68, owing partly to the ravages of the "borer" insect, partly to the inclement season in the Hassan district.

Assessed taxes realised 34,596*l.*, and were levied on 129,390 houses, 28,196 shops, 38,921 looms, and 3,410 oil mills. The total number of houses, exclusive of those situated in municipal limits, is 964,207, of which 834,817 belong to agriculturists and other classes who are exempted from payment of house tax. Assessed Taxes.

Customs, or Sayer, realised 82,576*l.*, or 2,500*l.* more than in 1867–68. Customs.

The Province possesses 309 schools, attended by 15,129 scholars, showing an increase of 199 to the number of schools of all kinds during the year, and of 8,194 to the number of scholars. The increase was chiefly in the hóbli or subtalook schools, which are designed for the benefit of the rural population and the masses generally. It is estimated that up to the present time at least 200,000 youths (excluding girls), who were of an age to attend school, were left without instruction of any sort. The necessity of devising some measure for extending education to the rural population has been met by a scheme which has already more than realised expectations. Scattered over the country, in more or less abundance, were indigenous schools, which provided all the available instruction for the numerous classes of traders, ryots, and minor officials, who lived out of the principal towns. The teachers, though generally illiterate, and possessing few claims to the office of teaching other than that acquired by hereditary succession to it, were regarded with respect by the people among whom they and their forefathers had lived, and it was certain that any popular scheme of education in which these men should have been set aside would have encountered a formidable resistance which would have been fatal to its success. In forming the hóbli schools, therefore, it was deemed essential to select masters for them among the teachers of indigenous schools, and to train them for the work in normal schools, of which there will be one in each division. The character of each man joining the normal school and his popularity in his own neighbourhood was carefully ascertained, and those unfavourably reported on were rejected, leaving no less than 354 men to be trained as schoolmasters. EDUCATION.

The total amount available for public works was 170,500*l.*; the actual outlay was 153,926*l.*, or 16,580*l.* less than the grant. The lapse occurred chiefly in the execution of agricultural repairs, and is attributable mainly to the new official year, ending 31st March, being extremely ill-adapted to Southern India, both in regard to the payment of instalments of revenue and to the execution of agricultural works. PUBLIC WORKS.

MYSORE. The Fusli year is stated to be that which the experience of ages points to as the demarcation between the hot weather and the rains, and the recent change is said to have caused much dissatisfaction among the agricultural community.

Political. The death of the Maharajah necessitated an inquiry into his affairs with a view to the reduction of the palace establishments, the liquidation of all outstanding claims, and the making an inventory of the property. Of 9,700 persons found to be attached to the Maharajah, about one-third were retained, the greater part of the remainder receiving liberal gratuities or pensions. The budget of the palace expenditure has been reduced from 130,000*l.* to no less than 82,500*l.*, and the whole of the debts have been paid off.

FINANCE. Receipts. Though the receipts of the year fell short by 32,000*l.* of the previous year's receipts, which were the largest on record, they were 23,742*l.* more than was anticipated. The total amount realised was 1,087,827*l.*, of which by far the largest item (775,367*l.*) was derived from the land.

Expenditure. The administrative or ordinary charges of the year amounted to 1,041,294*l.*; the settlement of the Maharajah's debts added 125,619*l.*, bringing the total expenditure to 1,166,913*l.* The largest items of expenditure were under the following heads:—

	£
Land revenue, customs, &c.	99,076
Administration	140,813
Law and justice	108,195
Allowances, &c., under treaties and engagements	257,115
Mysore local forces	111,832
The outlay on education was	16,146

The cash balance in Her Majesty's Treasury on the 31st March 1869 was 696,042*l.*

Revenue and Survey. The Survey Department had been five years at work in the Province, and the progress made up to October 1868 consisted in the final settlement of six talooks, comprising an area of nearly two million acres. The extent of land measured in the year was 789,780 acres, as compared with 743,041 acres in the previous year.

POPULATION. The population of the Province slightly exceeded four millions, of whom 95 per cent. were Hindoos. The year's increase amounted to 1·7 per cent., and the ratio of population to area over the whole Province was 155⅔ per square mile.

AGRICULTURE. The season was, on the whole, highly favourable for agriculture. Though the later rains failed somewhat, the out-turn of crops was larger than had occurred during many previous years, and the immediate effect was a considerable fall in the prices of grain all through the country. The extent of land cultivated with the various products is estimated at 3,353,799 acres, of which 2,198,476 are taken up by *rági*, and other food grains, 836,632 by rice, and 108,741 by coffee. The area sown with cotton, 20,111 acres, shows a falling off. The mulberry is cultivated on 1,700 acres; but the manufacture of silk, which is said to have been introduced by Tippoo Sultan, has been seriously affected by the peculiar disease from which the worms have suffered for two years past. In the Bangalore district the out-turn of silk has fallen from 4,000 maunds to 600 maunds (of 80 lbs.).

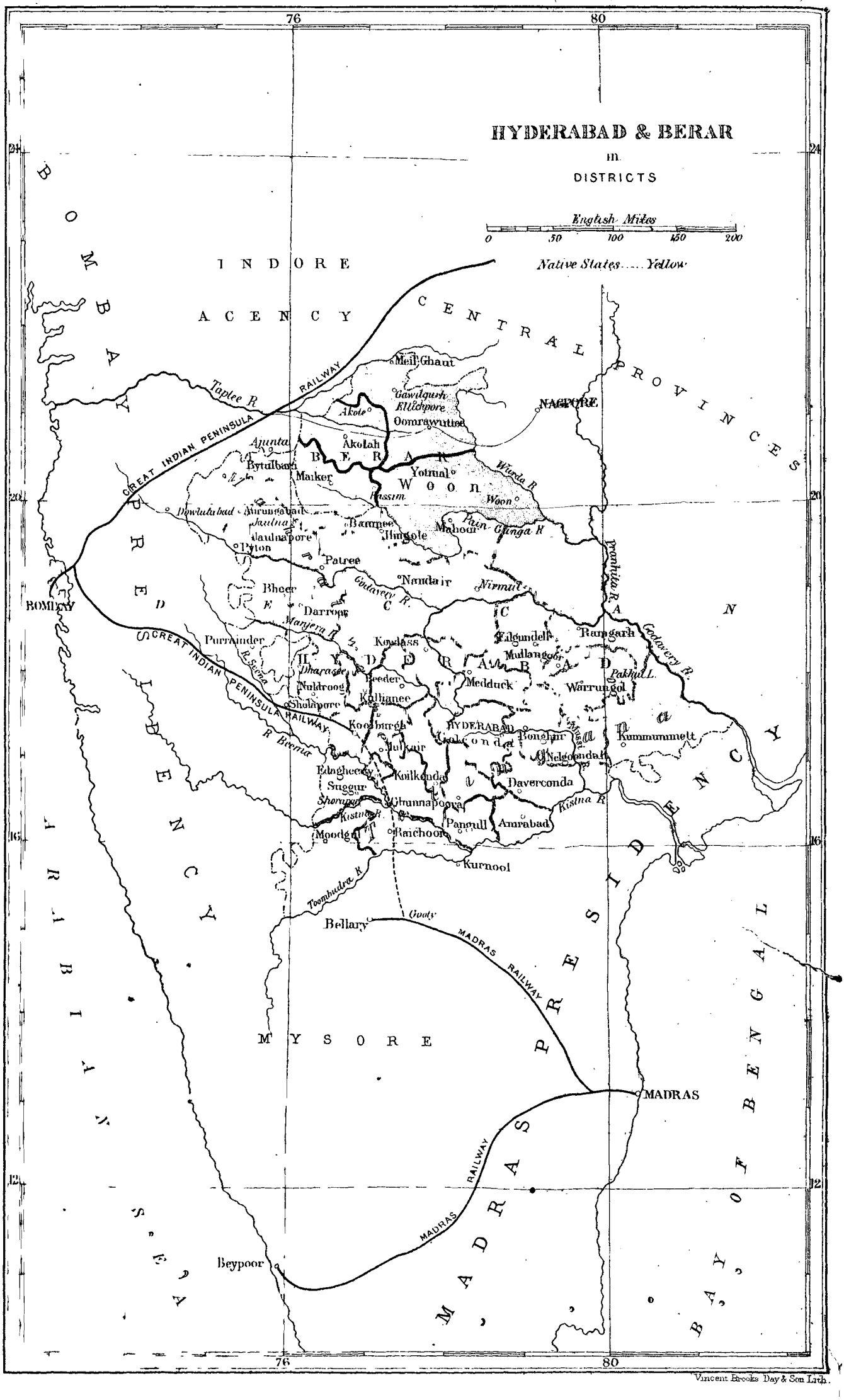
HORTICULTURE. Two exhibitions were held during the year with the object of introducing improved methods of flower and fruit culture, and the accounts received are most satisfactory, several of the principal native gardeners going to the expense of purchasing European seed.

TRADE. The estimated aggregate value of the export and import trade of the Province is as follows:—

	Exports.	Imports.
	£	£
1868–69	1,680,113	2,268,538
1867–68	1,388,635	1,630,100
Increase	291,477	638,438

The most valuable export is areca nut, of which 5,069 tons left the country estimated to be worth 300,000*l.*; food grains of various kinds were exported to the extent of 100,000 tons; 45 tons of silk were valued at 86,000*l.*, piece goods at 80,450*l.*; but the imports of this last article were far larger, amounting to no less than 2,449,514 pieces, representing a value of 1,266,508*l.*

Government Press. The value of the work done at the Government press was 3,441*l.*, or 738*l.* in excess of that of the previous year.


HYDERABAD & BERAR
IN
DISTRICTS
English Miles
0 50 100 150 200
Native States..... Yellow
76
80
24
20
16
12
BOMBAY
INDORE
AGENCY
CENTRAL PROVINCES
Taptee R
RAILWAY
GREAT INDIAN PENINSULA
Meil Ghaut
Gawilgurh
Ellichpore
Akote
Oomrawutee
NAGPORE
Ajunta
Akolah
BERAR
Bytulbara
Maiker
Yotmal
Wurda R
Woon
Hussim
Dowlutabad
Aurungabad
Jaulna
Bammee
Hingole
Manoor
Poorna Gunga R
Jaulnapore
Pyton
Patree
Nandair
Nirmul
Pranhita R
Godavery R
Bheer
Darroor
Manjera R
Purrainder
Kodass
Tilgundell
Mudlangoor
Ramgarh
Godavery R
Dharasee
Nuldroog
Beeder
Medduck
Warrungol
Pakhal L.
Sholapore
Kullianee
Sina R
Kooburga
HYDERABAD
Golconda
Bonghir
Kummummett
Bheema R
Nulwar
Nelgonda
Edugheery
Koilkonda
Suggur
Daverconda
Shorapoor
Chunnapoora
Kistna R
Kistnah R
Panyull
Amrabad
Moodgul
Ranchoor
Kurnool
Toombudra R
Gooty
Bellary
MADRAS RAILWAY
MYSORE
MADRAS
Beypoor
ARABIAN SEA
BAY OF BENGAL
PRESIDENCY
Vincent Brooks Day & Son Lith.

Port Blair.

The Annual Report on the Convict Settlement of Port Blair in the Andaman Islands, shows a satisfactory degree of progress. The total number of convicts on the 31st December 1868 was 7,230, or 264 more than at the close of the previous year. The free population, including the civil, military, and police establishments, numbered about 1,400, bringing the entire population of the settlement up to 8,630.

The ticket-of-leave system introduced during the year has been found to work admirably. Six hundred men have availed themselves of the privilege, which is only extended to life prisoners of good conduct after 12 years service. The result is, that Government is relieved from further charge for their support, and the free community gains in cheapened prices, owing to larger competition in the production of poultry and other articles of general use.

The formation of a convict corps of artificers has been undertaken. Contrary to general experience, it is found here that the convicts, under the stimulus of comparatively trifling gratuities, fully equal in energy and in some cases far surpass their free brethren; and it is hoped that Government will be in time absolutely independent of all hired labour.

Clearance of jungle was vigourously carried on during the year, mainly with the view to secure ample space round each station for sanitary purposes, and the total area was raised from 822 to 2,114 acres. A marked improvement in the health of the prisoners has followed, the mortality having been reduced from 10·16 to 3·9 per cent. The sanitary object accomplished, it was Colonel Man's intention in the following year to clear the jungle from the land in the interior, which he hoped would be found suitable for rice cultivation.

Hyderabad Assigned Districts.

The province of Berar, otherwise called the Hyderabad Assigned Districts, is held in trust for the Nizam of Hyderabad by the British Government, who hand over to him whatever surplus remains from the revenues after defraying all expenditure, including the cost of the force maintained for his support. The cession of the province in perpetuity took place in 1853 in consequence of the payments due to the British Government for keeping up the Hyderabad Contingent having fallen greatly into arrears.

The province is divided into East and West Berar. The eastern division comprises the districts of Oomrawttee, Ellichpore, and Woon; while the western contains those of Akolah, Booldanah and Bassim, the last having been formed, on the 1st April, 1868, out of some pergunnahs detached from East Berar. Grouped under the districts are 19 talooks, 10 in East and 9 in West Berar.

The area of the province is 17,000 square miles; its inhabitants number 2¼ millions or 132 to the square mile. In size and population, therefore, it resembles Denmark. The revenue derived from the land in the year under review was close on 450,000*l.*

Civil Justice.—The number of civil suits filed was 16,867, against 12,241 in 1867. This increase, amounting to 38 per cent., was chiefly due to the three Small Cause Courts, two of which were opened during the year at Ellichpore and Khamgaon. The returns show that with the enormous increase of trade in Berar there is a corresponding increase in litigation, although by persuading the people to draw up written agreements and the registration of deeds, much has been done to render resort to the courts unnecessary. The high stamp fees have had little appreciable influence on the number of suits filed. The value of the property involved was 187,951*l.*; more than 73 per cent. of the suits were decided in favour of the plaintiff, only 5·27 in favour of the defendant; while 18 per cent. were compromised.

Criminal Justice.—The register of crime shows an increase both of heinous and petty offences, but not more than may be naturally accounted for by a year of unusual hardship to the poorer classes. The large increase in thefts will find an explanation in the same circumstance. With regard to statistics, the number of offences for 1868 cognizable and not cognizable by the police was 8,456, as compared with 6,584 for 1867, an increase which to a large extent is apparent rather than real.

The action of the courts may be summed up by saying that in 6,346 cases brought before 60 courts of varying degrees of jurisdiction, conviction ensued in 70 cases out of every 100, 7,480 persons being punished. Of this number 66 per

HYDERABAD ASSIGNED DISTRICTS.

cent. were let off with simple fine; and of those imprisoned 87 per cent. were sentenced to short terms not exceeding six months.

Berar has proved a difficult charge for police on account of the large floating population attracted by railway works and a flourishing cotton trade, and the peculiar inaptitude of the inhabitants to protect their own property.

Police.

The police force consists of an inspector general, six European superintendents of districts, and two assistant superintendents, 16 inspectors, 94 chief constables, 314 head constables, 2,088 constables (foot), 40 camel sowars;—total force, 2,552. The total cost for 1868–69 was 46,854*l.* as compared with 43,734*l.* for 1867–68.

Dismissals and resignations were less frequent than during the previous year, but even the reduced ratio, if continued, will change the whole force in little more than five years. The cause is said to lie in the low rate of pay and the numerical deficiency of the force, which has caused the complaint of overwork.

A want of detective ability has been the general remark of the district officers, but police schools are now established in each district, where practical instruction is given. The men attending them have made considerable progress in their duties, and a still farther advance in efficiency may confidently be expected.

Gaols.

There is great need of suitable gaol buildings, as the gaol accommodation is generally defective. The two central gaols in course of construction at Akolah and Oomrawuttee cannot as yet be reported quite finished.

The number of persons imprisoned during the year was 1,990, nine-tenths of which number represent first convictions. The average daily number under confinement increased from 879 in 1867 to 966 in 1868, while the average cost per head in these two years has decreased from 8*l.* 3*s.* to 7*l.* 2*s.* The actual cost to the State, after deducting the value of prison labour, was 4*l.* 8*s.* per prisoner.

The total expenditure amounted to 6,921*l.*, against 7,299*l.* in 1867.

Revenue.

The advance in this branch has been most marked and satisfactory.

Land Tax.

The land revenue realised amounted to 447,557*l.*, leaving a sum of 2,030*l.* uncollected when the year closed. There was thus an increase of revenue realised over the preceding year to the extent of 10,684*l.* At the same time in no single instance was there resort to distraint.

The provincial area under cultivation was extended, on the whole, 95,636 acres. Thus the comparison between the two years stands—for 1867–68, 4,851,551; for 1868–69, 4,947,187.

The proportion of cultivated to waste is shown as 100 to 119 acres, or 45·57 per cent. on the total area, and exhibits a revenue demand averaging 1*s.* 9*d.* per acre.

At the same time there are marked indications of the improving condition of the cultivators. The mortgaging of standing crops is falling fast into disuse, and most of the smaller cultivators can now reserve from each harvest enough to keep them in food and seed until the next season.

In spite of a very scanty and singularly capricious rain-fall the crops did not suffer to the extent anticipated, while in some places the out-turn was not unusually deficient.

Survey and settlement.

The survey assessment has progressed favourably; and if the establishments be maintained at the strength sanctioned by Government last year it is estimated that the whole of the province, with the exception of the forest tracts of Mailghat, will be brought under survey and settlement by 1874.

Customs. Salt.

Under this head the sum of 31,180*l.* is exhibited as realised during the year under report. The amount of duty derived from salt, the only taxed staple, is made up almost entirely of the realisations of the Berar customs line, which amounted to 30,280*l.*; this, with a supplemental sum of 899*l.* 15*s.* from the district cordons, makes the aggregate sum of 31,180*l.*

The salt trade of the province is confined exclusively to the Kokan or Bombay coast produce, and it appears that 7,689 tons of salt entered Berar at Mukapoor on the G. I. P. Railway, and were distributed from the various railway stations. Budneira in Berar continued to be the principal centre of distribution.

	1867–68.	1868–69.
	£	£
Land Revenue - -	435,433	449,588
Customs, salt, &c. -	16,169	31,179
Abkarree , - -	87,176	86,488
Stamps - - -	34,798	45,626
Forests - - -	5,390	8,463
Miscellaneous - , -	3,377	1,699
£	582,347	623,046

It will be sufficient to show the other provincial revenues in a tabulated form of comparison between the years 1867–68 and 1868–69.

The local funds not included in the provincial revenues above aggregated 149,810*l.* for the present year against 135,712*l.* in 1867–68.

Thus the actual realised income for 1868–69 under all heads of receipts reached 772,856*l.*, showing an increase of 54,797*l.* over the income of 1867–68.

HYDERABAD ASSIGNED DISTRICTS.

Education.

To show that progress has been going on in this department it will be enough to record the facts that there has been an increase during the year,—

(1.) Of the schools from 224 to 335, or nearly 50 per cent.

(2.) Of the pupils from 9,327 to 12,207, or nearly 31 per cent.

Strength has been brought to bear upon lower-class education by opening 103 additional village schools. And something has been done to provide girls schools, which have risen from 15 to 23. But in dealing with them the greatest caution and tact is required for success.

The attendance at the different descriptions of schools is shown by the accompanying table.

	No. of Schools.	Average No. of Pupils.	Average Daily Attendance.	Average Daily Attendance for each School.
High Schools - -	2	188	146	73
Middle-Class Schools -	44	3,495	2,763	63
Lower do. -	266	7,920	6,450	24
Female do. -	23	585	426	19
Total -	335	12,188	9,785	—

The ratio of Mahomedans to Hindoos was 1 to 5.

Excluding female schools, there are 18 schools to every 1,000 square miles, and 10·06 pupils to every 4,000 males, or one pupil in every 99 males.

The total expenditure reached 22,779*l.*, of which sum 19,405*l.* was defrayed by general revenues, and the remaining 3,374*l.* was borne by local funds.

Public works.

The inspecting staff is now at its full strength, there being a European inspector for each of the two divisions, and six deputy inspectors, one for each district; whereas, in the preceding year there were only four deputy inspectors and one inspector.

Military.

Fair progress has been made at Akolah in the building of rest-houses for troops travelling by rail. Two large barracks for single men are nearly completed, and the barrack for married men, with out-offices, is finished and ready for occupation.

Civil buildings.

The gaol at Akolah has been completed; at Oomrawuttee the progress has been somewhat retarded.

Roads.

The Akolah and Mallaigaon road has been completed, thus opening out for cart traffic a connection between the railway at Akolah and the old Nagpore dâk line at Mulkapore. A series of minor roads at Bassim and Ellichpore have been finished.

Municipal government.

The Act for the regulation of Municipal Committees was declared applicable to the Hyderabad Assigned Districts in January 1868. Municipal committees have not been organised until within the last few months; they have now been formed at Ellichpore, Oomrawuttee, and Yeotmahl in East Berar, and at Akolah, Khamgaon, and Bassim in West Brear, and public works have in some instances been set on foot.

The income at the disposal of the local district committees and municipalities amounted to 61,597*l.*, and the total disbursements to 49,997*l.*

Electric telegraph.

Branch lines of the Government telegraph wire were, during the year under review, extended to Akote and Khamgaon, and have proved very profitable.

An interior postal communication has been opened with villages of growing importance by means of rural messengers. It is said to have succeeded very satisfactorily.

Finance.

The entire income of the administration, inclusive of local funds, amounted to 804,900*l.*, and the charges to 708,700*l.*

It may be noticed that the year 1868–69 produced the largest revenue yet obtained, and that the growth of the revenue is in a considerably higher ratio than the increase of the charge. In 1861 the receipts were 393,841*l.*, and the disbursements 344,162*l.*, while in 1868–69 the receipts were 645,163*l.*, and the disbursements 562,264*l.* Relatively to the previous year, the revenue increased by 9½ per cent., and the charge by 4·7 per cent.

Hyderabad contingent.

The progress of the annual charges on account of the Hyderabad contingent is shown as follows:—For 1867–68, 293,053*l.*; for 1868–69, 289,985*l.*

Public works.

The public works expenditure fell short of the estimate by 21,757*l.*, and of the expenditure during the preceding year by 12,919*l.*

An available surplus to the end of 1866–67 was declared to the extent of ten lakhs; and this sum was paid over to the Nizam in August of this year.

HYDERABAD ASSIGNED DISTRICTS.

The only troops located in the Assigned Districts are those of the Hyderabad contingent. The three stations are Ellichpore, Akolah, and Oomrawuttee.

Military.

Archæology.

During the last year something has been done in the pioneering way for the benefit of real archæologists; and there is every reason to believe that some valuable discoveries will follow upon research. Some of the architectural remains are very striking, all are curious; and as most of them can be assigned to known epochs and styles, they will enable competent explorers to trace more surely the line of the history of this province during the centuries immediately preceding the Mahomedan conquest.

Cotton.

The result of the year's experience on this subject is of no small value; and considering that the rainfall hardly exceeded one-half the average fall for the provinces, may be said to be, on the whole, eminently satisfactory. The indigenous plant weathered the season in safety, but the exotic plants from America and Dharwar failed completely. The quality of the cotton produced was inferior, but the total exports for the province by rail and road amounted to 233,000 bales, showing an increase of 32,300 bales over the exports of the preceding year. At the same time 11,261 more acres have been brought under cotton cultivation during 1868–69; and taking the cultivated area of the Berars at 4,947,187 acres, cotton monopolises nearly 25 per cent. of the whole. The out-turn per acre compared with the average out-turn in America, is still small, not exceeding 100 lbs. in the best lands. But it is hoped that the experiments now being conducted with manure and irrigation may lead to a large increase in the cotton supply from the Berars.

Dispensaries.

Three new dispensaries have been opened during the year, and there are now ten places at which dispensaries are working. The management of these institutions has been placed almost entirely in the hands of the district local committees, whose influence and interest is thus directly enlisted in their behalf.

Trade statistics.

	Goods.	
	Tons weight.	Value.
Exports -	121,527	£5,263,322
Imports -	101,681	5,498,151

For the registration of trade statistics 24 outposts in East and 9 in West Berar are maintained. The returns for the year 1868–69 are given in the margin.

MADRAS.

MADRAS.

Next to the island of Bombay Fort St. George was the earliest acquired of the three factories which formed the nucleus of the present Empire of the British in India, and it was here that their great struggle with the French was fought out. For some time it continued to be the most important of the three presidency towns, until the battle of Plassey gave the English the rich province of Bengal and a safer position in that quarter than could be maintained at Madras.

Its area is 124,250 square miles, or about 13,000 square miles less than that of Prussia, while it has a population of about 27 millions, Prussia having about 23 millions.

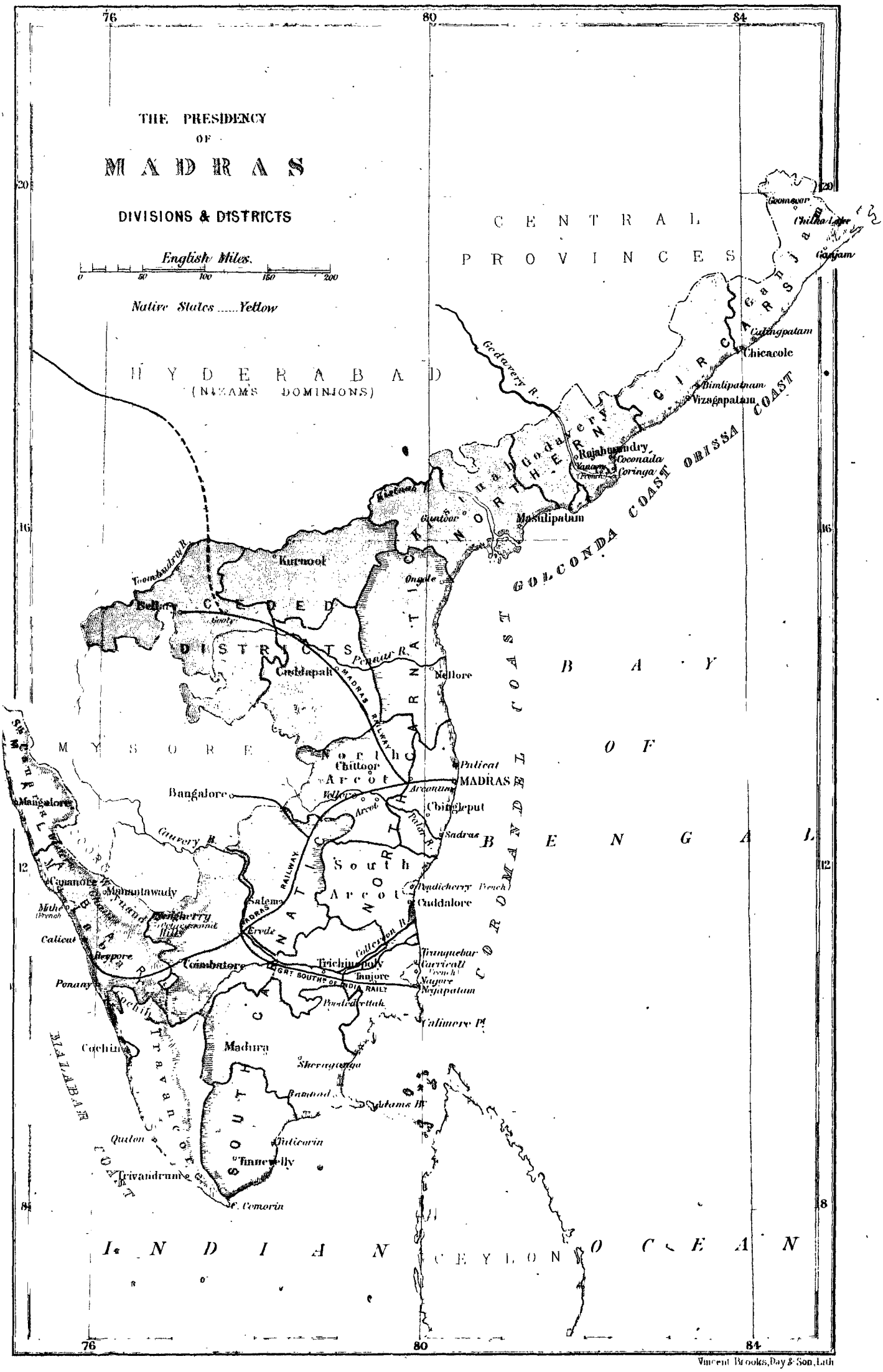
There are 21 districts, the Neilgherry Hills having been formed a separate district during the year.

LEGISLATION.

Four Acts were passed during the year by the Council for framing Laws and Regulations, and received the assent of the Governor-General. Two of them only need be noticed.

Act I. of 1868 created a separate Commissioner for the Neilgherry Hills, the reason for the change being that the arrangement under which, in all matters relating to revenue and administration, the district was a talook or subdivision of the Coimbatore Collectorate, had not been found to work satisfactorily. At the same time, the judicial business, which was extremely light, not warranting the continuance of a separate court, was transferred to the adjoining Zillah of Coimbatore.

Act. II. is one "to enable landholders in certain localities to levy tolls upon "roads and bridges constructed by them at their own expense, and also on roads "and bridges constructed at the expense of the State, the repair and maintenance "of which may be undertaken by such landholders." Its design is to enable planters in Wynaad (Malabar) and other planting districts to acquire the character of bodies corporate, and to reimburse themselves for the expenses specified.



Vincent Brooks, Day & Son, Lith

Other Bills were passed by the Council, but had not received the assent of the Governor-General. The "Inam Title Deeds Bill" defined clearly the meaning of certain words used in the title deeds required to be furnished to the holders of inam or rent-free lands, under the rules sanctioned by Government in 1859, for the adjudication and settlement of inam lands in the Presidency. The terms of the title deeds appear in many cases to convey a more extensive right than was intended or could legally be given, encroaching on the rights of other persons in the lands from which the inams are drawn, where the inam-holders do not possess the proprietary right to the soil, but only the right of receiving certain rents or taxes. The assent of the Governor-General to the Bill was withheld pending the passing by the Imperial Parliament of a Declaratory Act, in respect of the validity of the title deeds themselves. This Act was passed in the last Session, and gave the title deeds which had been issued by the Governor in Council of Madras the same force as if they had been issued by the Secretary of State.

MADRAS.

Inam Title Deeds Bill.

The "Canal Tolls Bill" prescribes "rules for regulating the navigation of rivers, "canals, and other inland waters, for the management of ferries, and for the "levying of tolls and licence fees;" and its primary object is to regulate the use of the canals in the Godavery and Kistna districts, which, it is believed, are managed in an unsatisfactory manner.

Canal Tolls Bill.

The "Salt Excise Bill" levies a duty on salt manufactured in such districts of the Presidency as the Government think proper.

Salt Excise Bill.

Civil Justice.—On the original side of the High Court 158 cases were pending at the commencement of the year, and 627 suits were instituted during the year, making a total of 785. Of this number 577 were disposed of in various ways, and 208 remained pending on the 31st December 1868.

JUDICIAL.

High Court, original jurisdiction.

20,134 suits were instituted during the year, being 5·94 per cent. in excess of the previous year, and 2,208 were pending from 1867. The number disposed of was 20,386 out of 20,699 set down for hearing within the year; 52·9 per cent. were decided in favour of the plaintiff, 37·59 per cent. were compromised, and the rest otherwise disposed of. The receipts were 9,038*l.*, the expenditure 7,581*l.*, leaving a balance of 1,459*l.* The value of the property in litigation was 67,439*l.*, against 69,786*l.* in 1867, showing an increase in the number of small claims.

Madras Court of Small Causes.

In the various divisional and district Courts the number of suits on the files was 225,973; 163,647 being instituted during the year, 60,393 pending from 1867; 168,647 were disposed of, leaving 57,326 undisposed of. By far the largest number of suits, 86·45 per cent., were for debts, wages, &c. The suits newly instituted in 1868 were 1 for 150 of the population; 54·66 per cent. of the suits were disposed of in favour of plaintiffs; 92·28 per cent. of the whole were decided by Native judges, only 6·01 per cent. by Europeans.

Mofussil Courts.

The business of the appellate side of the High Court can best be shown in the following statement; and it need only be added that there was an increase of 18 regular and 25 special appeals in the number filed, and that the number disposed of, 67·02 per cent. of the whole, shows an increase of 33 regular and 84 special appeals as compared with 1867. It is satisfactory to find that the decrees of the Lower Courts were confirmed in 80·65 per cent. of the appeals, and that only in 46 cases or 6·18 per cent. were they reversed.

High Court, Appellate Jurisdiction.

—	Undisposed of in 1867.	Filed during 1868.	Total.	Disposed of.	Undisposed of.
Regular appeals	67	133	200	112	88
Special „	274	636	910	632	278

5,600 appeals were pending from 1867, to which 5,725 were added during 1868. Of the total number, (11,325,) 5,668 were disposed of, and 5,657 remained pending at the close of the year. These figures show an increase of 473 in the number of appeals instituted, and a decrease of 1,090 in the number disposed of as compared with 1867.

Mofussil Courts, Appellate Jurisdiction.

Including all the Courts the right of appeal was exercised in 6,494, or 21·15 per cent. of the number in which appeal was possible.

Criminal Justice.—Rules were issued during the year by which a more immediate supervision is exercised by the High Court over all the subordinate Courts, and by the superior magistracy over the proceedings of the subordinate magistracy in the investigation of grave crime.

40 criminal petitions were pending at the commencement of the year, and 268 were filed during the year. At the year's close, 29 were undisposed of. 107

High Court, Appellate Jurisdiction.

MADRAS.

references were made to the High Court for confirmation of the sentence of death. Out of the 104 cases disposed of, sentence was confirmed in 96, or 89·7 per cent.

Offences of all kinds.

131,330 offences of all kinds were committed in 1868, against 132,386 in 1867; 64·9 per cent. of offences committed were brought to trial, and 77·7 per cent. of cases brought to trial resulted in conviction. Nearly one-half of the offences committed, or 49·6 per cent., escaped punishment, a result, however which is better than the average in England and Wales, where it appears from the Report for 1865 that "In nearly three out of every four of the offences committed no person "is convicted."

The increase in the number of offences against the person was considerable, from 21,493 to 27,716, out of which 288 were murders, against 222 in 1867.

Within the limits of this Report it is impossible to give a complete analysis of the criminal statistics. Suffice is to say, that while the total number of offences in the year under review is less, the number of persons proceeded against is greater. The decrease in the number of persons convicted, from 67·3 in 1867 to 64·9 in 1868, is in the minor cases; one in 141 of the whole population was proceeded against in 1868, one in 142 in 1867, and one in 128 in 1866.

POLICE.

Difficulty of obtaining recruits.

The strength of the Madras police on 31st March 1869, including staff and all ranks, was 24,574, or 4·8 per cent. below strength. This deficiency is owing to the difficulty of finding good recruits, the rates of pay being less attractive than the wages of labour.

Cost.

The total cost of the force, excluding State services, was about 400,000*l.*, being 15*l.* 10*s.* per man and $3\frac{1}{4}$*d.* per head of the population. Of this sum, 29,253*l.* was contributed by the municipalities.

Police watching produced a large increase to the customs revenue.

Health.

The death rate continues to decrease, being 10·7 per 1,000, against 12·5 in 1867, and 20 per 1,000 in 1866.

Conduct.

An increased number of men were fined, and the punishment is stated to be an unsatisfactory one, especially when there is a complaint that the men have not enough to live upon.

No recruit is now taken who cannot read and write. Of the whole force 65·2 per cent. can do so.

Efficiency.

Of 61,687 offences committed during the year, in the detection of which the police were concerned, 32,073, or 51·9 per cent., were prosecuted to conviction, a proportion that will bear comparison with that of the Metropolitan police in dealing with crime generally.

GAOLS.

Health.

28,537 persons were inmates of the gaols during the year. The number of admissions was 13,750; the daily average strength was 10,152, or seven less than during 1867–68.

The health of the prisoners continued good. The deaths in hospital were 357, or 3·51 per cent. of the daily average strength, being a slight improvement upon the rate of the previous year, and less than one-third of the rates of 1866–67, and the three preceding years.

Grain diet.

Of grain diet there are three scales in force, rice alone, dry grain alone, and mixed grain, and in the revision of the gaol dietary now being made, attention will be paid to the fact that the mortality was greatest in those gaols where rice alone was consumed, and least in those in which mixed grain was given.

Conduct.

The offences committed in gaol numbered 6,825, and were none of them very serious. The prisoners punished were 7,017, or one-fourth nearly of the inmates during the year.

Education.

The proportion of prisoners able to read and write was 14·40 per cent.; 80·31 were entirely ignorant.

Extra-mural labour.

The out-door labour of convicts continued to be employed in the construction of gaols, roads, and other public works, and was occasionally lent to municipalities and to private individuals.

Intra-mural labour.

Manufactures of various kinds are carried on in 22 gaols. The net sum realised from them rose from 900*l.* in 1867–68 to 2,597*l.* in 1868–69.

Expenditure.

The total expenditure, exclusive of guards and buildings, was 74,164*l.*

Remission of sentences and convict service.

The scheme, recently introduced, for the remission of sentences and for the employment of convict servants, is reported to have worked well; and the conduct of the warders, work overseers, &c., selected from the prisoners, was most satisfactory.

Subsidiary gaols.

The labours of the Subsidiary Gaol Committee were brought to a close during the year, after a full investigation of the requirements of all districts. Their pro-

posals embrace the construction of 244 new buildings, and the improvement of 80 now in existence, at an estimated cost of, in round numbers, 255,000*l.*, of which 120,000*l.* will be spent on cutcherries (offices), and 135,000*l.* on subsidiary gaols. A special grant for these works was sanctioned in October 1868, and 35,000*l.* were spent on them within the official year. MADRAS.

The number of registrations effected in 1868–69 was nearly 10 per cent. larger than in 1867–68, being 119,301 against 108,931. Their value was 5,624,792*l.* against 4,702,143*l.*, or an increase of 19·6 per cent. Registration of assurances.

The total receipts for the year were 6,365,293*l.*, or 161,315*l.* less than in 1867–68. The decrease was chiefly in land revenue, to a smaller extent under Abkarry and the licence tax. The receipts under customs, salt, and stamps showed an increase. REVENUE. Receipts.

The season in the Presidency was decidedly superior to that of 1867–68, and was on the whole not unfavourable, thanks to the ample rains of the south-west monsoon, which were sufficient to carry the crops through the subsequent drought in October and November. The year commencing promisingly, a larger area was laid under cultivation than in 1867–68; 16,518,877 acres, that is to say, which were assessed at 3,198,611*l.*, an increase of 202,696 acres in the one case, and of 24,782*l.* in the other; but the failure of the north-east monsoon disappointed first expectation, and produced a falling off in the collections, which amounted to 4,058,757*l.*, or 180,948*l.* less than in 1867–8. There was a gross increase of 80,542*l.* in six districts, and a gross decrease of 261,490*l.* in the remaining 14. More than half of the decrease occurred in the districts of Madras and North and South Arcot, where the pressure was most severely felt, following as it did upon two bad seasons. The amount collected by coercive processes was very small, a sign of the increasing prosperity of the agricultural class in general. The season. Land revenue.

Prices which commenced to decline in 1867–68, are now lower than they have been since 1863–64. Prices.

The charges for collection amounted to 673,383*l.*, or 10·6 per cent. on the revenue, an increase of one per cent., that is stated to be more apparent than real. Charges.

The Abkarry revenue amounted to 490,843*l.*, or 15,898*l.* less than in 1867–68. Under the present system smuggling is carried on to a great extent in Madras, and there was a great falling off in Ganjam, owing to the leading merchants engaging not to outbid each other, on condition of sharing the profits of the Abkarry lease. A new system is consequently under consideration for Madras, and in Ganjam the excise system was experimentally introduced in March 1869. Abkarry.

Incomes between 20*l.* and 50*l.* were under a new Act exempted from this tax; consequently the amount collected was 56,508*l.*, or 24,206*l.* less than in the preceding year. Licence tax.

The revenue under this head rose from 237,194*l.* to 261,046*l.* In the port of Madras the increase was 14,452*l.*, and in ports of Malabar, 4,315*l.*, or no less than 50 per cent. Sea customs.

The declared value of imports and exports continued to increase, and the amount of duty was the highest on record. Imports and exports.

The value of the cotton wool exported was 2,139,982*l.*, or 900,000*l.* more than in 1867–68; indigo exports rose from 431,500*l.* to 610,355*l.*; coffee from 805,433*l.* to 1,066,522*l.*; seeds from 342,673*l.* to 506,659*l.*; in no article was there an important decrease.

——	1867–68.	1868–69.	Increase.
	£	£	£
Imports - -	5,082,757	5,140,061	57,305
Exports . -	5,800,923	7,675,099	1,874,176

The increase under imports was chiefly in the articles of twist, cotton piece-goods, and rice; there was a large decrease in the value of railway stores imported.

In 1857–58 the imports of merchandise were valued at 2,468,545*l.* and the exports at 4,036,516; so that in the 12 years ending with that under review the first have more than doubled, while the exports have increased by more than seven-eighths.

The area under cotton cultivation decreased by 160,652 acres. It was 1,466,372 in 1867–68; 1,305,720 in 1868–69. Nevertheless the quantity exported, 89,181,858 lbs., was greater than it has ever been except in 1865–66. Cotton.

Food grains show an increase both in exports and imports, and exports are still a million hundredweights in excess of imports. Food grains.

MADRAS.

Bullion. Bullion imports, which were low in the two previous years, in the year under review rose from 1,129,000*l.* to 2,256,000*l.* and exceeded by 1,887,813*l.* the exports, which dropped from 1,000,000*l.* to 368,000*l.*

Salt. The collections from the sale of salt amounted to 1,107,041*l.*, or 13,240*l.* more than in 1867–68. The Government price for salt is 3*s.* 4½*d.* per maund of 80 lbs. The total quantity sold was 6,925,832 maunds, a slight increase over 1867–68.

Revenue settlement and survey. Of the revenue settlements and the revenue survey it need only be said that they were steadily carried on, and that the expenditure under these two heads was 22,800*l.* and 67,950*l.* respectively.

Inam commission. Pending the passing of the Declaratory Act spoken of, though a large number of cases were settled during the year by the Commission, no fresh title deeds were issued.

Forests. The forests produced a small net balance of 5,000*l.* after paying the expenses of the department, and allowing for a decrease in the value of timber in stock on 31st March 1869. A large portion of timber was supplied to the Public Works Department. It is hoped that a large number of blue gum trees (Eucalyptus globulus) planted out on the Neilgherries will in a few years take the place of teak, for which these hills are at present dependent on the plains. Several new trees that have been introduced from England and Australia are doing well. Attention is being paid to the indigenous flora, and a "Flora Sylvatica" of all the timber trees of Southern India is in course of preparation. Jungle conservancy is also receiving attention, and in Bellary the people are being induced by the example of Government to aid in planting a district which is almost destitute of trees.

Cinchona. The copious and continual rain on the Neilgherries made the past year a favourable one for planting cinchona, but owing to the small demands for plants on the part of planters, who now use seed, the average monthly increase by propagation has fallen from 48,267 in 1867–68 to 19,703. The red and grey barks continue to grow more luxuriously than the other species; the C. succirubra is found to thrive best at an elevation of from 5,000 to 6,000 feet. The Lanceolate-leaved officinalis, one of the seven distinct varieties raised from the seeds of the three species of crown barks received in 1863, has yielded the very large proportion of 11·40 per cent. of alkaloid and 9·75 per cent. of quinine. The addition of the C. Pitayoensis during the year completes the naturalization on the Neilgherries of all the valuable species of cinchona which have been discovered. Careful investigations continue to be made of the various questions affecting the success of cinchona cultivation, in the hope of ultimately placing within easy reach of all the use of this valuable medicine and febrifuge.

Experimental cultivation. The experimental cultivation continues of Hingunghat and New Orleans cotton, besides many other useful plants, cereals, &c. Carolina rice especially promises to be an important addition to the products of the country.

Pisciculture. At the instance of the Collector of South Canara, the conservation of the river fisheries has become a subject of interest. Already a prohibition against catching fish by poisoning the waters has been productive of good results.

District exhibitions. A cattle show at Addanki in Nellore and an agricultural show at Nellore were most successful.

Cattle disease. The successful treatment of the cattle disease has won the ryots to such confidence in the necessary measures, and to such an appreciation of the good effects of segregation, that the introduction of the Cattle Diseases Act has been pronounced unnecessary.

The Neilgherries. The formation of a separate commissionership for the Neilgherry Hills has been noticed. The new district contains about 1,000 square miles and a population of 38,142; 19,891 of whom belong to Hill tribes, whilst 2,616 are Europeans. The area under plantation is 13,372 acres, and the district is the chief seat of cinchona cultivation.

PUBLIC WORKS.

Imperial funds, grant and outlay. The imperial grant for public works in the Presidency in 1868–69 was 781,000*l.*, the expenditure was 808,765*l.* The total excess of expenditure (27,000*l.*) is much more than accounted for by the expenditure (55,036*l.*) on famine relief works; of which 34,950*l.* was spent on communications, and 14,201*l.* on agricultural repairs.

The expenditure in 1867–68 was 835,000*l.* The year under review, therefore, shows a net decrease of about 26,000*l.* in the imperial expenditure, notwithstanding an increased expenditure in the construction of barracks and gaols.

Local funds, grant and outlay. The grant from local funds was 283,185*l.*, whilst the outlay was 207,915*l.*, nearly 80,000*l.* less than the grant for the year, but 59,500*l.* more than the expenditure in 1867–68.

MADRAS.

Military.

The expenditure under this head (110,000*l.*) was chiefly devoted to the better housing and comfort of the European troops, and the largest outlay was incurred at Bangalore. Of the 39,000*l.* spent here, 21,500*l.* went to the new barracks and buildings on the race course, which have cost 126,000*l.*, and are now approaching completion. Various buildings, a bakery, a canteen, recreation grounds, and a project for supplying the station with water from the Ulsoor tank, consumed the remainder.

The most important item of the 14,300*l.* spent at Bellary was 3,000*l.* that went towards carrying out a plan for improving the defective water supply of the cantonment by drawing the rainfall through an excavated channel from a range of hills in the neighbourhood; 2,000*l.* was expended in the construction of a new native infantry hospital. At the Presidency 13,257*l.* were expended.

The Lawrence Asylum, for boys and girls, at Lovedale in the Neilgheries, which had cost 48,000*l.* up to the end of 1867–68, had a further sum of 20,315*l.* expended on it during 1868–69, and is now sufficiently advanced to be partially occupied.

Civil buildings.

Of the total outlay on civil buildings (133,806*l.*), no less than 89,758*l.* were spent on central, district, and subsidiary gaols. This high rate of expenditure is part of a scheme for providing suitable buildings for the confinement of convicts, to the lack of which is attributed the high rate of mortality which had for some years prevailed in the gaols of this Presidency.

Central gaols.

The central gaols are six in number, viz., at Rajahmundy, Cannanore, Salem, Vellore, Trichinopoly, and Coimbatore. The estimated cost of the works which are being carried out in connection with them is close on 140,000*l.*; of this sum 40,400*l.* was expended during the year, making a totul to the close of the year of 98,150*l.*

District gaols.

13,917*l.* were spent in district gaols; and on subsidiary gaols, with the cutcherries to which they are usually attached, was spent the sum of 35,437*l.*

Other civil buildings.

On civil buildings other than gaols the outlay was 44,047*l.*, of which 10,496*l.* were expended on lunatic asylums, 2,509*l.* on new wards to the Leper Hospital at Madras.

IRRIGATION.

The expenditure from imperial funds during the year on works of irrigation, including the cost of maintenance and repairs, was 236,316*l.*, a sum considerably within the budget grant. It will be sufficient to name the most important of them.

Godavery and Kistna.

Extensive works are being carried out on the Godavery and Kistna, having for their object the improvement of the navigation of the two rivers, and the construction of channels of irrigation for the surrounding country; a canal 90 miles long connecting the two deltas has been constructed, and is nearly complete.

Madras water supply.

The Madras water supply project is an important scheme for conducting water from some miles distant to the neighbourhood of the city, and there storing it in a tank whose capacity is to be increased from 38 to 102 millions of cubic yards. The tank besides supplying the city will be the means of extending cultivation. The sanctioned estimate cost of the scheme is 61,175*l.*, but the actual cost will, it is thought, be nearly double that amount. The expenditure of the year was 27,910*l.*, bringing the total up to 62,588*l.*

Tinnevelly irrigation.

A large project, estimated to cost 83,160*l.*, for still further utilizing the waters of the river Tambrapoorney, which traverses the Tinnevelly district from west to east, was vigorously commenced during the year under review. Besides extending irrigation it is part of the scheme to supply Tuticorin with fresh water. Such confidence had the people interested in the works in their value that they subscribed 3,884*l.* to hasten their commencement.

In nearly every district works of more or less importance are in progress, but they need not be enumerated.

Perryaur project.

Of the various improvements still occupying the attention of Government perhaps the most interesting is one for turning the waters of the Perryaur, which now flow west, into the Vigay, a river of the Madura district which has its outlet in the Bay of Bengal. The well-watered country on the west can well spare this diversion of one of its streams to the less favoured east.

COMMUNICATIONS.

The imperial expenditure on communications was chiefly devoted to the improvement of the great northern road from Madras to Calcutta, to the Ghaut roads in Coimbatore, Malabar, and the Wynaad, and to the opening out of the hill tracts in Ganjam. The total outlay on new works was 121,745*l.*, and the largest expenditure 22,000*l.* took place in Wynaad.

MADRAS.

Imperial roads.

In the year under review a question was definitely settled which has been under discussion for many years. It was decided that the expenditure from Imperial funds should be restricted to the three following classes of roads:—(i.) Main lines of communication; (ii.) Ghaut and exceptional roads; and (iii.) Salt roads. The main lines of communication are 25 in number, and their total length is believed to be 4,000 miles. The Ghaut and exceptional roads extend 650 miles; and the salt roads are nearly 500 miles in length. It is estimated that the cost of maintaining these roads when complete, which at present they are far from being, would be 120,000*l.*, or less than 3 per cent. on the land revenue. From Imperial funds will also be contributed half the cost of bridges over irrigation channels on district roads. The considerable funds raised from the road cess, recently imposed, are being devoted to the utmost extent to completing a network of minor communications among which the railway feeders are receiving the first attention. The outlay from the District Road Fund reached the sum of 151,709*l.*

Repairs.

From imperial funds 235,105*l.* were spent in keeping in repair 856 military buildings, 393 civil buildings, 1,456 tanks, 75 anicuts, 6,286 miles of road or canal, and numerous bridges and other works.

Irrigation and Canal Company.

The progress made in the works of the Irrigation and Canal Company is stated to have been one half less than might have been reasonably expected, though much greater than in 1867–68.

The number of labourers employed was very much below that of the year 1864-65, before the stoppage of the work, being 9,968 against 16,707. This may be partly accounted for by the completion of the greater part of the earth-works.

The present estimates for the completion of the various works, providing for construction only, are more than double the original ones.

	£
Present estimates - - -	1,015,552
Original estimates - - -	493,348
Increase - - -	£522,204

The expenditure during the year was 155,847*l.*, leaving a cash balance of 43,994*l.* at the year's close, and bringing the total expended in India, including cost of the permanent establishment as well as construction, up to 1,157,167*l.*

The expenditure was thus divided—

	£
Construction - - -	822,057
Control and executive - -	260,743
Stores, plant, and miscellaneous -	74,366
	£1,157,166

So that according to the estimate rather less than 200,000*l.* are still to be spent on construction.

MARINE.

The prosecutions reported last year had the effect of reducing the infractions of the Native Passenger Vessels Act of 1859 to nil. 104,407 persons were carried in 1868 in vessels licensed under the Act, against 89,923 in 1867, of whom 89,794 passed to and from Ceylon.

Five wrecks were reported, only three of which occurred on the Madras coast.

The reliefs by sea between Madras, and Calcutta, and Burmah were heavy, amounting to 12,862 officers, men, women, and children. The entire cost of the four vessels employed was 27,104*l.*, or slightly more than 2*l.* 2*s.* for each person.

Coconada.

While this port is fast rising in importance, and three new vessels were launched during the year, it is reported that the silting up of the southern portion of the bay continues to extend, and that the channel leading into Coringa river is daily becoming more intricate and shallow.

Madras.

Great inconvenience was caused to local commerce by a French barque drifting on to the pier and making a gap of about 250 feet, in which she sank. The reconstruction of the pier is estimated to cost 28,742*l.*, and is progressing as rapidly as the difficulty caused by the débris of the piles and the wreck will permit. This catastrophe, together with the scarcity of boats, the extortionate rates of the boatmen, and their disinclination to bring up their sons to their own trade, has revived the project of a breakwater for Madras. A committee convened by Government

have recommended the construction of a breakwater 1,200 yards distant from the shore and parallel to it, at a cost of . MADRAS.

The traffic through the Paumben Channel continues, 2,222 vessels having passed through during the year. Convict labour, though in insufficient quantity, is employed on cutting away the inner angle of the reef channel, commenced nine years ago, and on deepening the channel from 12 to 14 feet. Paumben.

The trade of this port increases, and 117,194 bales of cotton were shipped in 1868–69. Tuticorin.

Protective works have been found necessary to resist the encroachment of the sea at Cochin on the Malabar coast. Cochin.

West of Madura and Tinnevelly, its western coast washed by the waters of the Arabian Sea, lies the independent native state of Travancore. Its extreme length from Cape Comorin to the native state of Cochin and the Coimbatore district, which form its northern boundary, is 190 miles; it has an area of about 4,700 square miles, and it is traversed throughout its entire length by the western Ghauts. TRAVANCORE.

The population numbers 1,500,000 or about 320 to the square mile.

It is interesting to note the marked progress of this State under the Maharajah and his able minister Sir T. Madava, K.C.S.I. whose Government is in most particulars framed upon the model of British rule.

The Report received is for the year 1043, or the calendar year ending 14th August 1868. If the number of civil suits pending at the year's close was greater the number of suits disposed of was more than proportionately great, and for the clearance of the arrears three additional judges had been appointed. The cases of serious crime were small, and if the petty cases were more numerous it is accounted for by the greater material wealth of the people offering greater temptations to offences against property. In both civil and criminal justice the appeals were few, and the reversals of first decisions small in proportion.

In gaols the mortality was only 3 per cent. on an average daily strength of 521.

The registration of assurances based on the British Act came into operation in December 1867, and in eight months the number of registrations reached 17,334, involving property of an estimated value of 668,000*l.*

The receipts for the year were 518,894*l.*, and the expenditure 448,123*l.*, leaving a surplus of 70,000*l.*, despite a slight falling off in the land revenue, and increasing the balance to be carried to next years account to 402,583*l.*

The chief heads of increase are customs, salt, coffee and cardamum.

The consumption of salt which for the year under review was about 26 lbs. per head of the population has not been injuriously affected by the rise in the Government selling price dating from the convention with the British Government in 1865.

Coffee is subject to an export duty of 2*s.* 6*d.* per cwt. Its cultivation is extending and at the close of the year it was estimated that about 14,000 acres of coffee land had been taken up by European planters. Cardamum is a product which it would be difficult to tax except as a monopoly.

The Educational Institutions in Travancore are numerous, improving, and generously supported by the State. The standard of studies at the high school is that prescribed for the first examination in Arts in the University of Madras. In the districts there are 15 English and 20 vernacular schools, whilst at the capital, Trivandrum, there are besides the high school just mentioned a vernacular and a normal school, two girls' schools, English and vernacular, and classes for the study of medicine, in the two languages. All show progress, the girls' school "promising well," and the normal schools "doing good service." Owing to the absence of the Chief Engineer public works alone seem to have been at a stand still during the year. They are now being pushed forward vigorously.

The small native State of Cochin lies to the north of Travancore between it and the Malabar district. It has an area of about 400 square miles. COCHIN.

Nearly as satisfactory as in Travancore is the progress of this little State in every branch of administration.

Three regulations were passed by the Rajah all relating to judicial procedure. The first abolished the old Sessions Court, conferred greater powers on the Criminal Courts, and created a Court of Appeals where sentences were made final, excepting those involving death or imprisonment for life, which require confirmation by the Rajah with the advice of the British Resident. The changes are said to be sound in principle and as far as experience goes work beneficially.

MADRAS.

The second regulation is a Limitation Law founded on the British Indian Act; the third legalizes the employment of counsel for the defence, a right formerly denied under an old local law.

The receipts for the year amounted to 110,545*l.*, or 2,574*l.* more than in 1866–67, and the disbursements to 105,816*l.*, leaving a surplus of 4,729*l.* to be added to the previous balance of 52,155*l.* 59,632*l.*, or more than half of the receipts arose from land revenue; of the expenditure the largest item was 20,000*l.*, the subsidiary to the British Government, and 19,142*l.* was spent on public works.

Narakal, the port and harbour of refuge, was visited by 14 vessels only, against 37 in 1866–67.

CARNATIC.

The payments to Carnatic stipendiaries amounted to 53,452*l.*, against 64,303*l.*, in 1867–68; the number of persons receiving pensions on the 1st April 1869 was 1,125 persons; the lapses by death during the year were 46.

With regard to the debts of Prince Ajeem Jah, the commissioner had reported on 3,784 of the 3,915 claims preferred. To assist His Highness to settle his debts the Secretary of State granted him a loan of 120,000*l.* repayable by instalments in 12 years, and at the close of the year the settlement was taking place.

EDUCATION.

At the close of the year the number of colleges and schools connected with the Educational Department was 2,421, and they were attended by 86,982 pupils, 10,988 belonging to Government schools, the remainder (75,994) to private schools under inspection. Of the latter, 20,575, against 10,992 in 1867–68, were in unaided institutions, which under inspection are being improved so as to become eligible for grants under the system of payment for results. The average daily attendance in all the schools was 70,044. The pupils on the roll were to the population as 1 to 299.

These figures give an increase over the previous year of 43·5 per cent. in the number of schools, and of 38·1 per cent. in the pupils, an increase to which the largest contributors are the lower class schools, which rose from 1,171 to 1,772, and the pupils attending them from 28,464 to 41,448. Next in the scale of increase are the middle-class schools, which rose from 451 to 575, and gave instruction to 31,993 pupils, against 23,089 in 1867–68.

Of the 86,982 pupils 68,479 were Hindoos, while Mahommedans numbered 2,712. Of the various languages taught, by far the most common are English, Tamil, and Teloogoo, which were studied respectively by 37,985, 47,956, and 22,096 pupils. The expenditure of the Department was from—

	1868–69.	1867–68.
Imperial Funds -	77,465*l.*	65,104*l.*
Other Funds -	19,836*l.*	13,265*l.*

Though these figures give a total cost of 97,302*l.*, or 24·1 per cent. more than in 1867–68, the cost per pupil fell from 1*l.* 6*s.* 10*d.* to 1*l.* 4*s.* 3*d.*

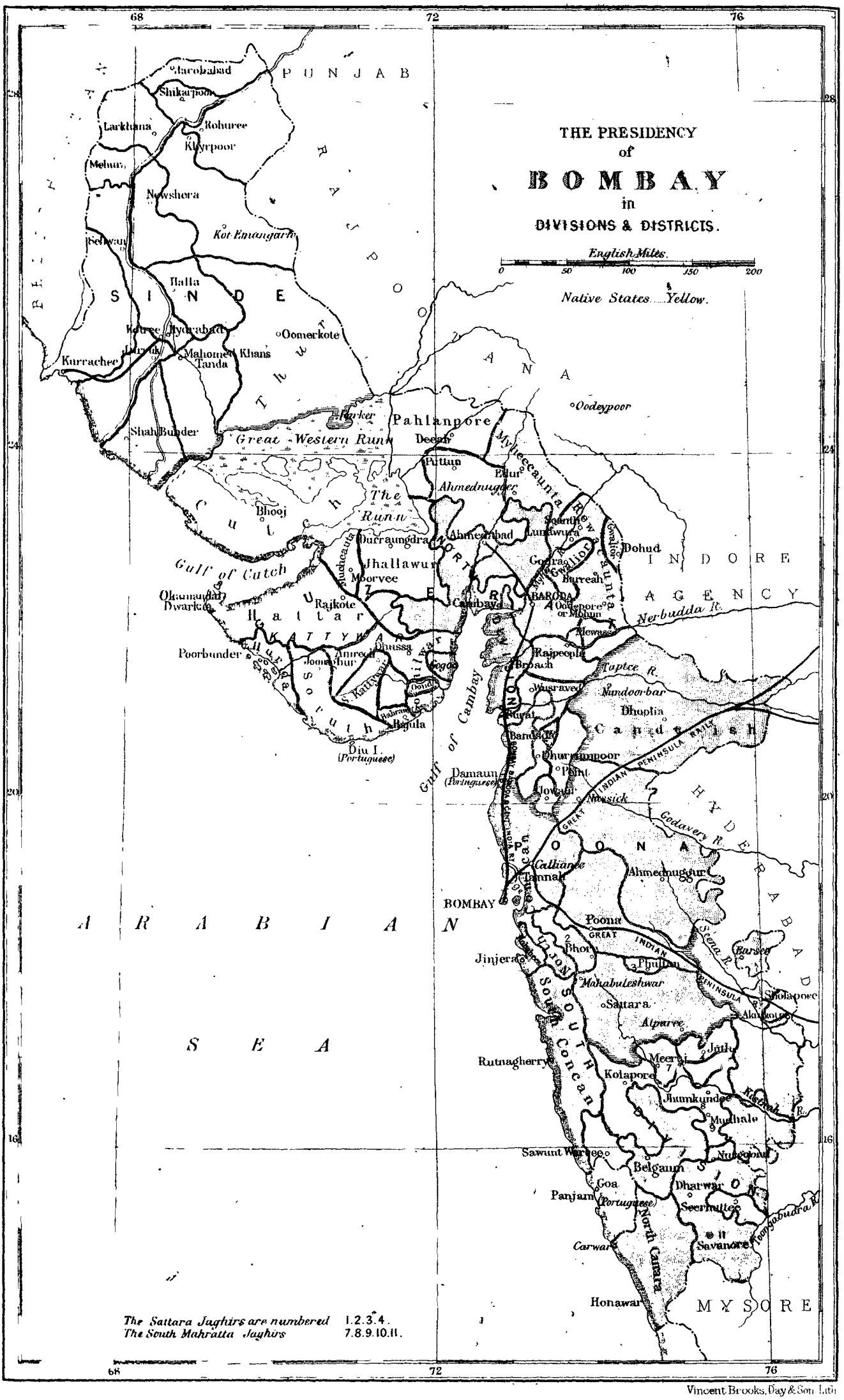
Finance.

Much need not be added to the information given in the margin regarding the finance of the province. Though the gross receipts were slightly less, there was nevertheless, owing to a large decrease in expenditure, a surplus greater by 127,349*l.* than that of 1867–68.

With regard to the receipts it will be seen that there was a considerable decrease under the head of "land revenue;" that "excise" too fell off 15,648*l.*, but that the deficiency was nearly met by a large increase in the returns from "salt," "customs," "stamps," and various other heads.

On the expenditure side the greatest decrease was under the head of "superannuation allowances, &c.," and amounted to no

Gross Receipts.	1867–68.	1868–69.	Increase.	Decrease.
	£	£	£	£
Land revenue - - -	4,244,396	4,068,789	—	175,607
Tributes from native states -	344,643	342,643	—	2,000
Excise - - -	506,491	490,843	—	15,648
Customs - - -	251,902	279,594	27,692	—
Salt - - - -	1,093,802	1,107,253	13,451	—
Stamps - - -	353,725	372,347	18,622	—
Other heads - - -	717,918	845,612	127,694	—
Total - -	7,512,877	7,507,081	Decrease	5,796
Charges against income -	1,005,708	1,042,616		
Net receipts - - -	6,507,169	6,464,465	Decrease	42,704
Expenditure:				
Army - - -	3,072,872	3,016,784	—	56,088
Public works, ordinary -	834,990	808,765	—	26,225
Public works, extraordinary -	81,319	122,869	41,550	—
Administration - -	134,718	143,645	8,927	—
Law and justice - -	405,928	414,617	8,689	—
Police - - - -	389,394	381,791	—	7,603
Superannuation, retired allowances, &c.	386,337	197,544	—	188,793
Other heads - - -	423,257	481,041	57,784	—
Total expenditure, excluding charges.	5,728,815	5,567,056	Decrease	161,759
Deduct gain by exchange on railway transactions.	3,215	11,509		
	5,725,600	5,555,547		
Surplus - - -	781,569	908,981	Increase	127,349



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less a sum than 188,793*l.*; the army expenditure was less by 56,088*l.* than in the previous year; less was spent on public works ordinary, but more on public works, extraordinary, and various heads, among which may be mentioned education, science, and art, the grant to which was increased from 87,744*l.* to 103,068*l.* The net result was a decrease in the total expenditure of 161,759*l.* MADRAS.

There are in the Madras division 862 miles of line of telegraph. The effect of the uniform tariff for all India (2*s.* for ten words), introduced 1st October 1868, appeared, as far as the returns were completed, to be that while the number of messages increased about 21 per cent., the cash receipts fell off 6 per cent. Telegraph.

The work accomplished in the Government press shows an increase of 9·4 per cent. This press, in which convict labour is to a great extent employed, effects a considerable saving to Government. Government Press.

BOMBAY. BOMBAY.

Though the island of Bombay was the earliest acquisition of the British in India, having been ceded to Charles II. by the King of Portugal in 1661, it was not till the conclusion of the Mahratta war of 1817–18 that, by the addition of the territory taken from the Peishwa, Scindia, and Holkar, the Presidency of Bombay received territorial extension which placed it on an equal footing of importance with the later settlements at Fort St. George and Fort William. Only two changes of importance have since been made; in 1843 Sind was annexed and was placed under the Government of Bombay to be ruled on the non-regulation system, and in 1864 the district of North Canara, bordering on Mysore, was, for convenience sake, transferred from Madras to Bombay. It will be seen that the province comprises a strip of territory some 900 miles in length, extending from the northern limit of Sind, on the south-west frontier of the Punjab, to the kingdom of Mysore on the south, and occupying more than two-thirds of the western coast of the peninsula. Between the non-regulation division of Sind and the Bombay Presidency proper, intervene the territories of the numerous chiefs of Gujerat, a large province independent of more than British supervision, with the exception of a small portion in its centre, which is nearly severed by the Gulf of Cambay, and belongs to the northern division. The Bombay Presidency has then three main divisions, the Province of Sind in the north, which is placed under a Commissioner; the feudatory states of Kutch and Gujerat in the centre; and the fertile division of Bombay proper, which is divided into two Commissionerships, the northern and the southern.

The area of Bombay and Sind is 140,827 square miles, or rather more than two-thirds the area of the continent of Spain. The population is about 14 millions. Under the jurisdiction of Bombay is Aden, the small peninsula of about 15 miles in circumference, situated on one of the most southerly points of the Arabian coast. Numerous feudatory states of more or less importance are included within the bounds of the Bombay Presidency; some of them receive notice in the report that follows.

Eight Acts were passed by the Council for making laws and regulations, and came into operation during 1868–69. It will be sufficient to notice the three following:— Legislative.

Act II. of 1869, levies a tax on "Professions and Trades within the City of "Bombay for Municipal Purposes," the highest rate being 160*l.* on profits assessed at 40,000*l.* and upwards, and the lowest eight shillings on profits between 100*l.* and 250*l.* Separate schedules in the Act provide for companies and persons receiving salaries.

Act III. is an Act to provide funds for local works of public utility and convenience, and to make better provision for education and sanitary improvements in the Presidency, local committees being constituted for the due administration of such funds.

Act IV. levies town duties within the city of Bombay in addition to any customs duties prescribed by law, the object being to provide additional funds for municipal purposes.

In consultation with the local officers and with due regard to communications and the relative density of the population, the limits of the subordinate civil courts have been re-arranged and their number reduced, while the pay of the judges has been greatly increased. The increase of salary will, it is hoped, attract men of higher education and learning, and was indeed rendered necessary by the higher qualifications required of candidates for the post of subordinate judge under a recent Act of the Government of India, framed with the object of raising the standard of judicial ability of the native bench. The duties of the courts are of a high character, Administrative changes.

BOMBAY.

calling for a knowledge on the part of the native judges of both law and equity, the former term including not only the religious and customary laws of various peoples, but also the *lex loci* as established by statute and precedent.

District Courts, original jurisdiction.

Civil Justice.—There came before the District Courts of Civil Jurisdiction 142,520 suits during the year, or 12,500 more than the number filed in 1867–68.

The number of cases decided was, on the other hand, less by 53,000, so that the arrears, which at the commencement of the year were 14,694, had risen to 28,652 at its close. Of the total number of suits filed 122,299 were for sums under 50*l.*, the amount involved in the suits decided was 1,371,776*l.* against 1,442,480*l.* in 1867–68.

Courts of small causes.

In the Bombay Court 24,703 new suits were filed, or 1,600 less than in 1867-68; 24,764 were disposed of against 25,890, and the arrears were 1,492 against 1,552 in the previous year.

In the four district courts the suits filed were more numerous than in 1867-68 by about 1,000; 13,131 were disposed of, leaving 1,257 cases undecided, or nearly twice the number at the year's commencement.

Criminal Justice.—Following out recent orders, restricting transportation beyond seas to those criminals who are sentenced to transportation for life, certain places in the Presidency and in Scinde have been proposed as places of transportation for those sentenced for a definite term of years.

36,873 criminal offences were committed during the year, and there were 33,831 trials; of the total number of persons tried (68,016), 36,154, or more than half were acquitted. The offences and the trials exceed by about 1,000 the numbers of the previous year. The increase occurred under the head of "assaults," and some of the more serious offences; on the other hand there were fewer sentences of death and transportation.

Police.

The number of persons brought before the police magistrates in Bombay during the year under review rose from 17,620 to 25,993, of whom 14,080 persons were convicted. This very large increase is attributable in a great measure to the unusual influx into Bombay that followed the conclusion of the Abyssinian campaign. In the proportion of convictions by the magistrates there was a marked improvement, the proportion of convictions having risen from 58 to 77 per cent., and in cases brought up by the Executive Police from 62 to 87 per cent.

Though, owing to certain difficulties in the way, it is considered impracticable at present to introduce any system of education into the police, the matter will not be lost sight of.

Northern division.

Turning to the rest of the Presidency, it is reported from the Northern division that notwithstanding the exceptional character of the year,—famine in Khandeish, ruinous floods in Guzerat in the month of August, followed by great drought, and, in addition, large immigrations of the famine-stricken inhabitants of Rajpootana and Malwa,—the general tranquillity of the country was in no way disturbed, and there was no unusual amount of crime,—facts creditable to the police.

The total number of cases recorded was 19,382, against 19,181 in 1867-68, while the number of detections was 16,599, an increase of from 78 to 81 per cent., and a proof of the greater vigilance of the police.

The year saw a reorganisation of the force and the final settlement of the strength of each district; while their numbers have been reduced to a very low standard, by a higher scale of pay and the hope of pensions for faithful service their efficiency have been increased in a manner that it is hoped will prove them to be able to cope with their more onerous duties.

Southern division.

Similar changes were carried out in the Southern division, and form the most important event of the year.

The statistics of crime show a diminution throughout the entire division of 5·47 per cent.

At the headquarter station of each district police schools have been established, in which the men and their children are taught to read and write, and the former are instructed in criminal procedure and police codes. Properly conducted they will doubtless be conducive of much good to the force, and become beneficial to the community at large.

GAOLS.

The number of prisoners received into the Criminal Gaols was 14,132 against 14,690 in 1867–68, but the daily average, (5,941) shows a slight increase. The gross cost of their maintenance rose from 59,000*l.* to 61,500*l.*, and the gross cost per prisoner from 10*l.* 2*s.* 8*d.* to 10*l.* 7*s.* 2*d.*, but a great increase in the value of

convict labour, which in the year under review realised 28,139*l.*, reduced the *net* cost of each prisoner from 6*l.* 7*s.* 10*d.* to 5*l.* 12*s.* 5*d.* BOMBAY.

The per-centage of deaths was unusually low, having fallen from 5·40 in 1866–67, and 3·44 in 1867–68, to 1·73.

The success of the schools, which are now established in all the gaols, has on the whole been very creditable. The instructors are for the most part convicts, but in many cases paid teachers. With regard to the standards of education, it is reported that of the total admissions only 955 could read and write.

In Sind owing to the cessation of the litigation which followed the over-speculation of 1864 and the collapse of 1865–66, and to the working of the Stamp Act, the value of civil suits diminished considerably, from 68,497*l.* that is, to 34,857*l.* At the same time both the number of suits filed and the decisions were more numerous, the former increased from 9,354 to 10,329, while the arrears at the close of 1868 were 400 only, against 724 in the preceding year. SIND.

The number of criminal offences committed (10,934) was less by nearly 500; there were 200 more persons brought to trial; against 7,600 persons convicted as many as 9,600 were acquitted, a fact which, while it hardly speaks favourably for the police, is said to be due in some measure to the strictness of the courts.

The generally unfavourable character of the season throughout the Bombay Presidency has already been noticed in connexion with the statistics of crime. As bearing upon the ability of the landowners and cultivators to contribute each his allotted quota to the revenue of the country, it is again touched upon in the introductory chapter on that subject, and it is satisfactory to learn, from a comparison of the figures of 1868–69 and 1867–68, that the distress which prevailed did not greatly affect the returns of land and sayer revenues, while it had altogether failed to disturb the general tranquillity of the country. In the collectorates of Dharwar, Belgaum, and Canara, the great cotton producing districts, the season was, on the whole, favourable for agriculture, but throughout the rest of the Southern division, and nearly the whole of the Northern, the failure of rain was universal, though variable. Government went out to meet the distress which the destruction of crops and house property by floods brought upon the population of Guzerat. In Khandeish, as has been stated, Government relief had to provide for large numbers of the starving population of Marwar and Rajpootana who flocked into British territory, and, but for the employment given to the Bheels, it is thought that under the pressure of famine they would have returned to their old habits of plunder and lawlessness. The total revenue realised, under the heads of land and sayer, in 1868–69 amounted for the whole Presidency, including Sind, to 3,549,757*l.*, which is a falling off of 62,000*l.* compared with 1867–68. REVENUE.

The contributions of the four divisions are shown in the margin. In Sind the increase amounted to 21,150*l.*; by far the greater portion of which was in the land revenue. In Bombay the increase of 18,570*l.* was chiefly owing to a larger yield from the certificate tax than had been realised from the previous licence tax. Only in the Southern division was there a small decrease of 8,537*l.*

	£
Southern Division	1,521,313
Northern Division	1,441,721
Sind	504,621
Bombay	82,102
	£3,549,757

The revenues derived from customs, the principal heads of which are given in the margin, rose from 831,098*l.* to 882,336*l.*, an increase to which every item contributes, and which is due to larger imports and exports of general merchandise, as well as to the larger quantity of spirits imported for consumption in the island of Bombay from the distilleries of Oorun, Bhandoop, and Bassein.

	£
Import duty.	
General trade	770,032
Spirits	66,556
Export duty.	
Sea customs	40,201
Land frontier duties	7,586

The salt removed from the pans on payment of full duty was, in 1867–68, 31,47,206 maunds; in 1868–69, 36,93,876 maunds, or an increase of 54,667 maunds, which produced a corresponding increase of 104,914*l.* in the revenue realised in this branch of the revenue, which in the year under review was 615,587*l.*, against 510,673*l.* in the previous year. SALT.

In the opium revenue the decrease was most serious, amounting to as much as 550,213*l.*, which represents a falling off in the number of chests on which pass fees were levied of 9,124 as compared with 1867–68, and of 3,130 compared with the five preceding years.

		£
1867–68 - Opium chests	39,216	2,356,938
1868–69 - „	30,092	1,806,725

The aggregate value of the external trade of Sind for 1868–69, exclusive of Government stores, was 4,257,030*l.*, or 244,000*l.* less than in 1867–68. The SIND.

BOMBAY.

customs duties amounted to 51,341*l.* The increase of 3,809*l.* which this represents was attributable chiefly to large imports of cotton piece goods direct from the United Kingdom. The removal of the excise duty on salt has created a revival of the trade in that commodity.

Finance.

Not many words need be said in explanation of the figures given in the margin. It will be seen that there was a considerable increase in the gross revenue under every head but two, more than counterbalancing the heavy falling off there was in the returns realised from opium, passes, owing to the drought having compelled the population of Malwa to seek their own safety to the abandonment of the cultivation of the poppy.

——	1867–68.	1868–69.	Increase.	Decrease.
Gross Receipts:	£	£	£	£
Land revenue	3,612,612	3,549,757	—	62,855
Opium	2,356,938	1,806,725	—	550,213
Customs	831,098	882,336	51,238	—
Excise	415,311	445,814	30,503	—
Salt	510,673	615,587	104,914	—
Stamps	450,890	470,357	19,467	—
Marine	157,957	448,511	290,554	—
Other heads	948,512	1,218,685	270,173	—
Total	9,283,991	9,437,772	Increase	153,781
Cost of collection, &c.	1,903,952	1,799,818	—	—
Net Receipts	7,380,039	7,637,954	Increase	257,915
Expenditure:				
Army	2,780,767	2,960,948	180,181	—
Public Works, ordinary	1,154,150	1,073,572	—	80,578
„ „ extraordinary	448,959	481,294	32,335	—
Administration, &c.	158,131	179,524	21,293	—
Law and justice	432,208	460,585	28,377	—
Police	378,610	386,381	7,771	—
Marine	496,526	406,170	—	90,356
Other heads	767,389	692,137	—	75,252
Total expenditure, excluding charges, &c.	6,616,740	6,640,611	Increase	23,871
Surplus	763,299	997,343	Increase	234,044

The expenditure side presents no remarkable variation between the two years compared, and the net result of the year was a surplus of 997,343*l.*, or 234,044*l.* greater than that of 1867–68.

The imperial grant for public works was 1,345,000*l.*, of which 1,073,572*l.* were expended, and the remainder, amounting to more than one-sixth of the whole, was permitted to lapse; for the grant made by the Government of India is subdivided into several minor grants, and funds which for any reason cannot be spent under one head may not be devoted to another. The Special Fund had 375,000*l.* allotted to it, of which it spent but 245,000*l.*; and of 290,000*l.* allotted to agricultural works, only 180,000*l.* was required during the year. For military works the grant was 390,000*l.*; the actual sum expended was 40,000*l.* less. Under the head "Other "Services" on the other hand, which comprises Civil Buildings, Communications, and Works of Public Improvement, there was an excess expenditure of 55,000*l.* the outlay having been 345,000*l.* against a grant of 290,000*l.*

It has been said that the imperial expenditure of the budget grant was 1,115,000*l.*; add to this 57,500*l.* contributed from local funds, chiefly for road repairs, 17,500*l.* raised by private subscription, and 130,000*l.* spent on works included in the Local Budget, and it will be seen that the grand total actually expended by the Public Works Department *on works*, excluding establishments and tools and plant, is raised to about 1,300,000*l.*

The establishment employed in carrying out these works cost something under 220,000*l.*, or about 16½ per cent. When irrigation surveys and the preparation of projects are complete, the per-centage of establishment to expenditure will be much less.

Military works.

The want of sanctioned plans and estimates which has hitherto made it impossible to carry out the improved accommodation required by British troops in this Presidency, was removed during the year, and barracks on the new standard have been commenced at Colaba, Belgaum, Kirkee, Ahmednuggur, Ahmedabad, and Kurrachee. But sanction was received too late to admit of the whole of the allotment to military works being expended.

The recent decision of the supreme Government to debit the outlay on barracks to current revenue, instead of to loan, has reduced the Bombay allotment for 1869–70, from 395,000*l.* to 290,000*l.*; a reduction that will, it is stated, necessitate the most stringent economy, and possibly a partial stoppage of works.

Civil buildings.

The new post office at Bombay was begun at the close of the year. Its site is on the esplanade facing the public works offices. The style will be mediæval,

and it is estimated to cost 60,000*l.* The public works offices were commenced in March 1869, and will be a very handsome specimen of Venetian Gothic. The cost is limited to 40,000*l.* BOMBAY.

The Jamsetjee Jejeebhoy hospital, a building of the pure early English Gothic, has been nearly completed at an outlay of 16,000*l.*, and is the cheapest architectural building as yet erected in Bombay.

There is also under construction on the esplanade a new secretariat in the Venetian Gothic style. The sum of 32,500*l.* has been spent already on it, and at the rate the work is now being done, the cost will be considerably less than the estimate of 126,400*l.* These are the most important of many works of utility which are under construction, and will, it is believed, give architectural beauty to the city of Bombay; nor is it necessary particularly to notice the various buildings in progress throughout the Presidency.

Passing to the next head of public works expenditure, it will be sufficient to notice a few of the projects that are being carried out. The works on the Krishna Canal have been completed to the end of thirty-second mile, at a cost of 56,735*l.*; the people are fully alive to the benefits resulting from them, and have irrigated about 6,000 acres. Agricultural works.

The Ekrook tank or lake upon which 49,000*l.* has been spent out of an estimate of 78,837*l.* will when complete have an area of between six and seven square miles, and is principally designed with the object of supplying with water the large town of Sholapore.

But the largest and most important work which has yet been undertaken in the Deccan is the Moota Valley project. It is designed for irrigation, but it will also afford an unlimited supply of water for the cantonment and city of Poona and the neighbouring cantonment of Kirkee, where scarcity of water has been an evil of long standing. The design of the scheme is to carry a masonry dam nearly three-quarters of a mile in length across the valley of the River Moota at a distance of 10 miles above Poona, so forming a lake or reservoir about 14 miles in length with an average width of half a mile. On either side of the valley there will be constructed two canals, one 99 miles, the other 16 miles in length for the irrigation of the country. The work commenced in the first months of 1869 is being constructed with the greatest care; materials and plant to a large extent have been collected and it was anticipated that great progress would be made in the ensuing year. The estimate for the work amounts to 374,727*l.* and the expenditure during the year was 29,500*l.*

Good progress was made in the construction of communications throughout the province, especially in the cotton district where a network of good roads is a necessity. Communications.

The principal event of general political interest during the year of report may be said to have been the gathering of the leading chiefs of Gujarat and Katteewar at the ancient town of Broach towards the close of December last. These chiefs, for the first time in the history of our connection with the country, assembled in Durbar to do honour to the head of the Government. POLITICAL.

In Katteewar the destruction of Mooloo Maneck and four of his associates on the 8th May 1868 put an end to the rebellion of the Wagher outlaws who had so long overrun the Province, and order and tranquillity have since been successfully maintained. Katteewar.

The result of this blow was, that the chiefs who had furnished the several contingents comprising the Federal Seebundy, which had been primarily organised against these outlaws, made a combined effort to do away with the corps as a local body under efficient European control; but it was pointed out to them that tranquillity was not ultimately assured, and that the corps could not be abandoned until the police arrangements of all the states were placed upon a more satisfactory footing. But, as yet, Nowanugger is the only state in which this hint, which was well received by all, has produced any practical results.

	No. of Schools.	No. of Scholars.
In 1866-67 -	101	6,895
In 1867-68 -	150	11,440
In 1868-69 -	260	13,724

In the matter of education several new schools have been opened throughout the Province, and placed under the immediate supervision of the Government Educational Department.

Public works have not been at a standstill. The main road from Rajcote to Wudwan (65 miles) has been completed, and many others are in an advanced state of progress.

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Kutch.

The differences between the Rao and his Bhyad have occupied the earnest attention of the British Government, and are said to be in a fair way of being adjusted.

The internal confusion has been the result of peculiar feudal relations between the Rao and his chiefs, and the social system common to all Rajpoot states.

The present occupants, the Jhareja Rajpoots, immigrated into Kutch at the beginning of the 15th century. The title borne by their chief was originally "Jam," but in 1580 was changed into "Rao." The Bhyad or brotherhood is the name given to the system of minute subdivision of fiefs which obtains in all Rajpoot states, and is here carried out, with all its fatal consequences, to the last extremity. Infanticide, the great curse of Kutch, is perhaps only a legitimate consequence of such a system.

Kolhapoor.

The main feature of interest in connexion with this State is, that the young Raja, who has been trained for the duties of his high station under an English officer, has begun to undertake some of the real work of government.

Sind frontier.

Considerable uneasiness has prevailed in the districts of the Khan of Khelat, who unfortunately is not on the best terms with his own chiefs, on account of the threatened hostilities on the part of the Persian Governor of Bampoor; but they have happily passed over. Agreements have been made with the Belooch chiefs for the care and protection of the land-line telegraph, which has been commenced from Gwader to Cape Jask.

Education.

There is a total number of 2,216 Government institutions; in addition to which there were 240 private schools aided by Government or subject to inspection. These figures represent an increase during the year of 320 in the first, and of 49 in the second class of institutions. The number of pupils during the same period increased in the Government schools from 122,171 to 140,496, that is, by more than 18,000. In the private schools there were at the end of the year nearly 17,000 pupils, representing an increase of 2,500.

The Imperial expenditure on education was 108,935*l.*, a very slight increase over that of 1867–68; but from this sum must be deducted about 20,000*l.* devoted to science and art,

Local funds contributed nearly 91,000*l.*, or about 19,000*l.* more than in the previous year.

These two sums together gives a grand total of 175,642*l.* devoted to education alone.

Indo-European telegraph.

There have been several alterations and improvements in the working of this line during the past year, notably the reduction of the tariff for a single rate of 20 words between Kurrachee and Great Britain from 5*l.* 1*s.* to 2*l.* 10*s.*

The gross and net revenues realised by this line amounted to 149,068*l.* and 94,478*l.* respectively. The total number of messages transmitted was 35,492, an excess of 4,808 over the number of the previous year. The revenue, however, shows a decrease of 4,409*l.* as compared with 1867–68, caused mainly by the reduction of the tariff above mentioned.

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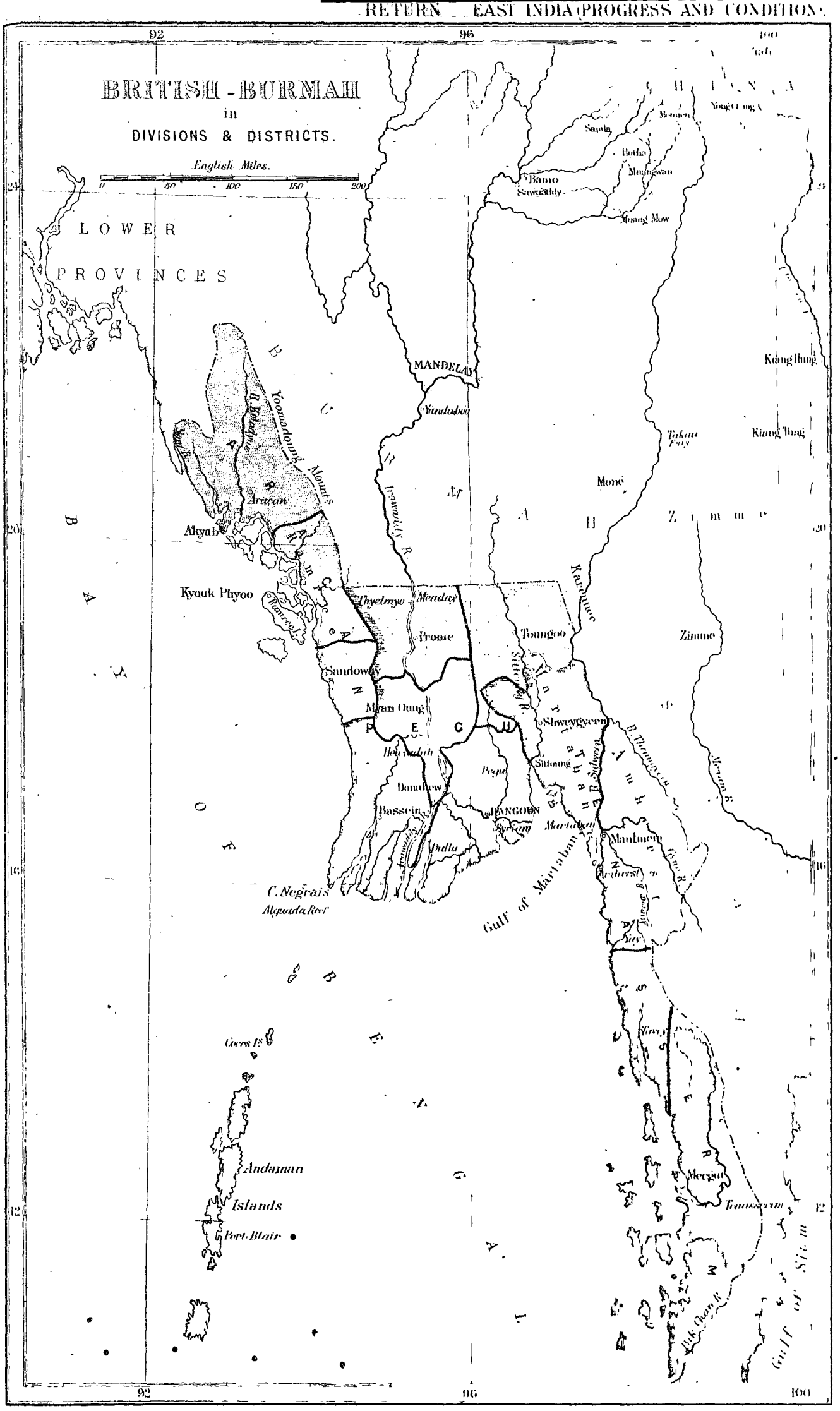
General progress.

In 1826, at the conclusion of the first Burmese war, Aracan and Tenasserim became British possessions. The king of Burmah still retained the whole of the northern portion of his dominions; and the important Province of Pegu, with its flourishing port of Rangoon, and the minor one of Bassein, was still interposed between the two provinces in a position to withdraw from them both population and trade. So thinly inhabited were Aracan and Tenasserim, and so unproductive, that it was seriously proposed to restore them to Burmah. Happily for the British Government, and happily for the people, wiser counsels prevailed.

In 1862–63 the population of Aracan had increased from 100,000 souls to 386,144, or by 386 per cent. in 36 years; its revenue from 41,714*l.* to 182,096*l.*, or by more than 400 per cent.; its area under cultivation from 66,227 acres to 359,710; and Akyab from a Mugh village had become a large and flourishing seaport town. The population of Tenasserim had increased from 70,000 souls to 394,264; the total area of assessed cultivation had increased to 254,234 acres, and the total revenue to 187,549*l.*; and Maulmain, which in 1826 was a mere fishing village, had in 1852 a population of 60,000 souls. Moreover, the imports and exports of the port of Akyab, which in seven months of the year 1830-31 were


BRITISH-BURMAH
in
DIVISIONS & DISTRICTS.
English Miles.
0 50 100 150 200
LOWER
PROVINCES
BAY OF BENGAL
BURMAH
CHINA
Bamo
Sawuaddy
Mandelay
Yandaboo
Irawaddy R.
Yoomadoung Mounts
R. Kolodyne
Aracan
Akyab
Kyouk Phyoo
Ramree I.
Thyetmyo
Meadow
Prome
Sandoway
Myan Oung
Pegu
Donabew
Bassein
Dalla
RANGOON
Syriam
Martaban
Gulf of Martaban
Toungoo
Sittoung
Shweygyeen
Karennee
Mone
Zimme
Kiang Hung
Kiang Tung
Takau Fay
Maulmein
Amherst
Yay
Mergui
Tenasserim
Gulf of Siam
C. Negrais
Alguada Reef
Coces Is.
Andaman
Islands
Port Blair
92
96
100
24
20
16
12

valued at 7,378*l.*, and were carried in 140 vessels, had in 1855–56 risen beyond all comparison; the exports for that year were valued at 1,256,500*l.*, of which the value of grain alone was 1,067,862*l.* and of timber 158,634*l.*; the value of the imports was 778,844*l.*; while the tonnage of vessels which cleared out was 195,162 tons. British Burmah.

The cause of this marvellous progress is to be found in the settled government which following on British occupation tempted the Burmese to fly from the misrule that reigned in their own country. With the annexation of Aracan and Tenasserim, set in a migration from Burmah to British territory, which, notwithstanding the opposition of the Burmese authorities, continued unabated, until, on the addition of Pegu to the British empire in 1852, at the conclusion of the second Burmese war, there was no longer any reason why the inhabitants of Pegu should emigrate to Tenasserim or carry their produce to Maulmain. The British merchant, following rapidly after the British army, established himself in Rangoon, and Rangoon has taken its proper place as the most important, the most prosperous, and the busiest town in the Province, while, at the same time, Pegu, owing to its greater natural advantages, has advanced far more rapidly than the two older districts, and partly at their expense, that is to say, the progress of Aracan and Tenasserim in general prosperity though continued has been less marked; while the rice trade of Akyab has been seriously affected by Rangoon: from being, perhaps, the first rice port in the world it has become the third or fourth port in the Province; and the value of its grain exports, which was 1,067,862*l.* in 1855–56, had diminished in 1862–63 to 396,349*l.*

The returns for 1855–56 give the population of Pegu as 631,640 souls, and the gross revenues as 297,753*l.* The area of rice land under cultivation was 510,149 acres, on which the assessed revenue was 82,648*l.*

Among the improvements that have been carried out in the Province the most important is the construction of six lighthouses on points of the coasts which were noted for the danger they caused to mariners. That on the Alguada reef, off the mouth of the Bassein river, occupied four years in building, and cost 100,000*l.*

British Burmah has since 1864–65 placed at the disposal of the General Government of India 175,000*l.*, and in 1868–69 alone the remittance was expected to amount to 335,000*l.*

The still further development of the resources of the Province is only retarded by the absence of roads. Everything is done to attract emigrants. They are exempt for five years from the capitation tax, they get grants of land on the easiest terms, and yet the inhabitants number only 40 to the square mile, and the area of uncultivated waste land is enormous.

Lord Dalhousie, when he visited the Province in 1852–53, saw the necessity for the vigorous prosecution of a system of roads, and the roads between Rangoon and Meaday, Rangoon and Pegu, Martaban and Toungoo, Maulmain and Mergui, were all selected by him as urgently required for the improvement of the country; but the mutiny of 1857 interrupted their construction, and up to the present not one of them has been completed.

Geography.

British Burmah extends along the eastern shore of the Bay of Bengal from the Chittagong division of the Lower Provinces to the kingdom of Siam in 10° N. lat., and is naturally divided into four portions:—

(1.) A narrow strip of country between the Bay of Bengal and the summits of a chain of mountains and hills forming the Aracan-Yoma range, which terminates at Cape Negrais. Aracan extends along this slope from the Nâf estuary, which divides it from Chittagong to the Keintalee River, where it joins Pegu.

(2.) The valley of the Irrawaddy between the summits of the Aracan-Yoma and the Pegu-Yoma, the latter being a range of low hills in the centre of Pegu seldom rising to 2,000 feet in altitude.

(3.) The valley of the Sittoung between the Pegu-Yoma and the Poung-loung mountains which divide Pegu from independent Karennee.

(4.) The valley of the Salween with its tributaries on both banks, including the Yonzaleen on the right and the Thoungyeen, Gyne, and Attaran valleys on the left. These, with the Tenasserim River and a long strip of coast ending at the Pakchan stream, are in the Province of Tenasserim.

Owing to the nearness of the range which bounds Aracan there are no large rivers. The Koladyne or Aracan river, at the mouth of which is Akyab, is navigable for 50 odd miles by vessels of 300 or 400 tons burden. The entrance to it is dangerous for ships of heavy burden, the channel being narrow, and the depth at

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low-water springs shallow. The soil is mainly alluvial; the rocks are composed of a dark brown sandstone, black gneiss, and brown or grey clay slate, and towards the southern portion basalt is plentiful. Except a small quantity of iron and limestone, there are no mineral productions of any value.

Valley of the Irrawaddy.

The valley of the Irrawaddy unites at its lower end with the valley of the Sittoung to form an extensive plain stretching from Cape Negrais on the west to Martaban on the east. The northern boundary line which separates the British possessions from the territory of the king of Burmah, and which is marked by a line of stone pillars, leaves the Aracan hills at a point called "the ever visible peak," and running due east it passes the Irrawaddy at its fiftieth mile, and 43 miles further the Pegu-Yoma range; thence after 33 miles it crosses the Sittoung, and finally loses itself in the Poung-loung range 13 or 14 miles further east. At the frontier line the Irrawaddy valley from chain to chain is 80 miles broad, rugged, and unfit for regular cultivation, but as it flows south the hills recede, and the valley becomes a broad rich plain, the richest portion of the whole Province. The valley of the Sittoung, divided from the Irrawaddy valley by the Pegu-Yoma hills, and from the Salween on the east by the Poung-loung range, somewhat resembles the former, but is narrower and less productive.

Rivers.

The Irrawaddy flows for 660 miles before reaching the British possessions, and afterwards its waters roll on in the same, generally southern, direction for 240 miles to the sea. As it nears the coast it divides, converting the lower portion of the valley into a network of tidal creeks. The most important towns on the main river in British territory are Thayetmyo, Meaday, Prome, Henzadah, and Donabew. Bassein is on the western branch of the delta; Rangoon is on the Hleing or Rangoon river, the eastern branch of the delta. The Sittoung enters British territory north of Toungoo, and flows past Toungoo, Shwè-gyeen, and the town of Sittoung. The meeting of the tidal wave of the Indian ocean arriving from the south-west, and of other portions of it borne from the south-east along the Tenasserim coast, produces a bore, which, with a curling crest nine feet high, sweeps up the Sittoung river; its effect, broken by the river's curve below the town of that name, being yet felt at Shwè-gyeen.

The valley of the Salween is British territory only in its lower portion. The Salween, though a large river, is not navigable beyond 100 miles from its mouth owing to its rapids. Maulmain, the capital of Tenasserim, is situated at its mouth.

The surface of the country in Tenasserim is mountainous, thinly populated, and much intersected by streams. The Tenasserim river rises in about 16° N. lat., and flowing south between the grand boundary range and a smaller one which runs parallel to it, turns west after passing the ancient town of Tenasserim. It is navigable for large ships for some distance, and for boats for 100 miles.

Area.

The total area of the Province is 93,879 square miles, of which Aracan has 18,528; Pegu, which includes the Irrawaddy valley and the valley of the Sittoung on its right bank, has 36,454; and the Tenasserim division which takes in the left bank of the Sittoung. In magnitude, therefore, the whole Province approaches the kingdom of Italy, while Pegu the most important of the three divisions, is almost equal in size to Portugal.

Of the total area of 93,879 square miles, $3{,}044\frac{5}{12}$ are cultivated, which is only 7 per cent. of the culturable area, 38,195 square miles. In Pegu alone there are no less than 17,000 acres of uncultivated waste land which only requires population to become as fertile as any in the world almost. Last year the grants and sales amounted to 44,025 acres out of 20,089,685, or about 0·2 per cent., a rate which would bring the land fully under cultivation in 500 years.

Communications.

The communications throughout the Province are mainly by water. Steamers ply on the Irrawaddy between Thayetmyo, Prome, Myanoung, Henzadah, and Rangoon, and a small steamer runs from Bassein to Rangoon. There is steam communication all round the coast from Calcutta to Akyab, thence to Rangoon and Maulmain; and from Maulmain a small steamer runs once a month south to Tavoy and Mergui. The only canal in the Province is one which connects the Pegu and Sittoung rivers.

Roads.

Notwithstanding the comparatively large revenue of the Province there are, as has already been stated, but $655\frac{1}{2}$ miles of road altogether, of which 124 are first class and $374\frac{1}{2}$ second class.

Climate.

The climate is warm, moist, and depressing, and in some of the forest tracts it is during the monsoons, and for some time after the cold weather has set in, deadly

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On the coast, however, and on the frontier it is not an unhealthy climate. The rainfall varies considerably from 253·15 inches at Sandoway to 48·50 inches at Prome. In May the thermometer ranges from an average of 76⅞° F. at sunrise to 88¾° F. at midday; in December from 65° to 80°.

Expedition to explore the routes leading to Western China viâ Bhamo.

An expedition was despatched during the past year under the leadership of Major Sladen, political agent at Mandalay, to endeavour to penetrate into Yunan viâ Bhamo. The expedition left Mandalay on the 13th January 1868, and returned to that place on the 15th September following.

The chief objects for which the expedition was sent, were to discover the cause of cessation of the trade formerly existing by these routes, the exact position held by the Kakhyens, Shans, and Panthays with reference to that traffic, and their disposition or otherwise to resuscitate it; as also to examine the physical conditions of the routes.

The Panthay rebellion against the Chinese authorities was the primary cause of the cessation of trade by the Bhamo routes, which as late as 1855 (the date of the rebellion) was nearly half a million of pounds sterling, and all previous history of this line of commerce with which we are acquainted proves beyond doubt that there exists an important field for trade in these localities. The knowledge, too, acquired by the mission assures us that the parties most interested in this commerce desire a revival of the trade. Major Sladen succeeded only in reaching the frontier town of Yunan (Momein), the disturbances in the interior of the country precluding his proceeding further. It would, doubtless, have been very interesting from some points of view had the party succeeded in reaching Tali, the head quarters of the Panthay Government; but it certainly appears that the Panthay authorities whom Major Sladen met at Momein were of sufficient importance and position to render their views and opinions a safe criterion of the favourable feeling of the Panthay Government towards the resuscitation of trade.

The expedition having only reached Momein, Major Sladen has refrained from speaking with any authority in his report regarding the trade statistics of Yunan. All the information, however, that he was enabled to give most fully corroborates the reports of the mineral wealth of Yunan, as also the wealth of the neighbouring Provinces of Szchuen and Kwei-chau, and their trade in tea, silk, rhubarb, tobacco, sugar, hemp, oil, varnish, and other commodities, and their capacity to consume European manufactures, a large proportion of which trade we shall gain when once the route by Bhamo is fully re-opened. Mr. T. T. Cooper, in his late endeavour to travel from China viâ Thibet to India, in a letter to the "North China Daily News," from a place named Tai-Tsian-loo on the western frontier of China, fully confirms the importance of the resuscitation of the trade by Bhamo. In it he states that the "present trade between Chung-king and Yunan and Kweichau, is only "temporary (with Hankow on the Yangtsekyang) on account of the closure of the "Bhamo and Tali route, and as soon as this route is re-opened, so sure will "Burmah take to herself the trade of these two Provinces, and if, as is probable, "British merchants establish themselves at Mandalay," (this has already been done), "then a rivalship for this trade between China and Burma merchants seems "almost certain, the result telling probably in favour of the latter, both in exports "and imports. Trade by this route has flourished before, without European "enterprise, and as soon as it is re-established, the trade between Hankow "and Chung-king will be lessened one-third."

There are three principal routes from Bhamo, which, leaving the town of that name on the Irrawaddy, run in a north-easterly direction to Tali, the present Panthay capital of Western Yunan, passing over the Kakhyen hills, then through a narrow belt of Shan States, and joining together at Nantin, proceed on to Momein, the border town of Yunan, whence by Yungchang (the centre of the trade in Western Yunan) the route passes on to Tali. Considerable delay occurred in the Kakhyen hills, prolonging the period of absence of the expedition beyond that which was anticipated, but this is not to be regretted, as it enabled Major Sladen to obtain considerable information regarding the Kakhyens, who, holding the hills, must always form an important element in any scheme for re-opening the route, and has given them an opportunity of learning our real intentions, regarding which they would appear to have been falsely imbued by designing persons.

The three routes above mentioned are valleys pierced through a range of hills lying in a north and south direction, forming a spur of the Himalayan range of mountains, and are named severally, the Northern, Sanda Valley, or Ponlyne route; the centre, Hotha Valley, or Embassy route; and the Muangwan Valley, Southern

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or Sawuaddy route. From Mr. Gordon's (the engineer officer who accompanied the expedition) report it appears that he considers the Northern route along the Sanda Valley to be the most advisable one as far as physical difficulties are concerned, and that the central or Hotha Valley, for the purposes of a road constructed on scientific principles, cannot compete with either the Northern or Southern routes. He does not speak so confidently of the latter as the former route, as he had not the same opportunities for observing it; but on the whole he is of opinion "that a "good road with easy gradients can be made without great expense through either "the Sanda or Muangwan Valley." No difficulties greater than are ordinarily met with in constructing hill roads exist in the Kakhyen hills, and the country compares favourably with the Aracan mountains opposite Prome, over which a road has been constructed 100 miles long, 90 of which are in the mountains. The distance between Bhamo and Momein is only 120 miles, and he estimates that by the Sanda Valley route there would be 70 miles of plain land and 50 miles of hilly through which the road would pass, and that as labour and good material for road making are available in the country to any extent that may be required, a road 20 feet wide in the plain land complete might be taken at a cost of 10,000 rupees per mile, and in the hilly land 12 feet wide, with gradients of 1 in 30, completely bridged, should not be over 10,000 rs. per mile; or the road could be made for 1,000*l.* per mile, the whole length of 120 miles costing 120,000*l.*

Major Sladen reports regarding these routes, that "it would be premature to "puzzle ourselves which is the most practicable in an engineering point of view, "until we are prepared to entertain a definite scheme of road improvement or even "railroad communications, that trade to an almost unlimited extent is now possible "by any of the existing routes without reference to their engineering capabilities, "and that the determination of either of these three routes as a through-route for "general traffic must depend for sanction on questions of policy and general "expedience, rather than of special adaptability or physical disqualifications;" and he prefers the Hotha valley, central, or Embassy route to the other two for all present purposes of commerce and communication.

From both the reports of Major Sladen and Mr. Gordon we gather therefore that the present routes are available for traffic by means of mules as formerly, that between Bhamo and Momein no physical difficulties of any kind exist to the construction by one or other of these valleys, of either a road built on scientific principles for wheeled carriages, of a tramway, or of a railway, and that the length of such would only be 120 miles.

The Government of India has sanctioned an Assistant Political Agent being stationed at Bhamo, and his arrival there no doubt will confirm the belief in the reality of our intentions to re-open the traffic, and to maintain communication with the Shan Chiefs and Panthay Government; and also influence the Kakhyens towards giving facilities for safe transit of goods. The Court of Mandelay had, previous to the last treaty, shown great distrust and thwarted all our attempts to send an expedition viâ Bhamo, as also great jealousy of English steamers plying between Rangoon and Mandalay, but since the ratification of that treaty His Majesty appears to be fully alive to the advantages that must ensue from a re-establishment of the extinct trade, and as far as our steam communication on the Irrawaddy is concerned, the Burmese Government have become accustomed to it, and found from experience its great advantages. Before the beginning of 1867, only four English steamers with merchandise had ever been up to Mandelay from Rangoon, but now there is a regular communication every 10 days to and fro' by the vessels of the Irrawaddy Flotilla Steam Company, and the trade has so rapidly increased that steps are now being taken for very shortly establishing a weekly line of communication by large steamers built on the American principle, with beam engines and carrying their own cargoes without flats in tow, and capable of performing the voyage up to Mandelay from Rangoon within seven, and Bhamo nine days, and the down trip in each case in half that time. Any trade, therefore, that may come to Bhamo will certainly pass down the Irrawaddy, and any idea of its being diverted towards Assam through the difficult country between Bhamo and Sudya on the Bhramapootra or viâ Munnipore and Cachar, is totally out of the question. Our trade with Upper Burmah has doubled itself within the last four years, and although, perhaps, immediate results may not flow from our attempts to re-open the old trade route with China and the Shan States, still in a few years, if our efforts are earnest and continuous, we may hope for an extensive and valuable addition to our trade being established.

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On our north-eastern frontier are the independent hill States of the Eastern and Western Karennee tribes. The chiefs of the former have always declined having any relations with the British Government, while the latter have been on most friendly terms with us. For some time the frontier has been in a most disturbed state. About three years since, on the death of the chief of Eastern Karennee, the succession was disputed by his two sons, and taking advantage of the confusion that reigned the Zimmay Shans were able to expel this tribe from all occupation of the territory east of the Salween river. Then the Western Karennees, instigated by Prince Myeng-gon, the rebellious son of the King of Burmah, who had taken refuge with them, made an attack in June 1869 on their brethren of the east and were repulsed, and in their turn suffered at the hands of the Burmese troops for the shelter afforded to the Prince, who finally fled into British territory, where after attempting to raise a rebellion he was captured in August last. This state of the frontier interfering greatly with our timber trade at Maulmain, the chief of Zimmay has been called upon to check the disorders on his frontier and the King of Burmah has been requested to cease all interference with the Western Karennee.

The Karennee tribes.

Civil divisions.

British Burmah consists of three divisions of very unequal area and population, viz., Aracan, Pegu, and Tenasserim.

Aracan has 18,529 square miles of area and 45,314 inhabitants; in the year under review it produced a gross revenue of close on 200,000*l.* sterling. It is divided into three districts: Akyab, Ramree, and Sandoway.

Pegu is divided into five districts, of which Myanoung is the most populous. With an area of 33,440 square miles and a population of 1,480,581, or 4·16 per cent. more than in 1867–68, the whole Province produced a gross revenue of 743,993*l.* in 1868–69, showing an increase of 12 per cent. on the previous year. The progress made by this division was, judging from these figures, good, but the land tax fell off, and the increase in the gross revenues is due to an increase in taxes which do not show the real material prosperity of the country. The crying want is population, for, including in the calculations the large and populous towns of Rangoon and Prome, there are but 40 souls to a square mile.

Rangoon.
Bassein.
Myanoung.
Prome.
Toungoo.

Tenasserim has four districts, an area of 38,897 square miles, and a population which increased in the year under review from 424,517 to 473,016. The gross revenues fell off considerably, from 206,220*l.* to 165,363*l.* The decrease was principally in Amherst.

Amherst.
Shwè-gyeen.
Tavoy.
Mergui.

Population.

The total population of the Province numbers 2,395,985, against 2,329,312 in 1867–68, or an increase of 66,673, or 2·86 per cent. By far the largest portion of this increase must be attributed not to births, but to immigration from Upper Burmah and from China.

The land settlement.

The settlement in British Burmah is not on the same footing as in other Provinces of India. Here, though the terms are extremely liberal, it is difficult to get the people to take a five or a 10 years' lease. The rent is calculated according to the productiveness of the land, its distance from a market for the sale of its produce, the facilities for conveying the produce to such market, and the local price of the produce. With a few exceptions, all landholders are proprietary cultivators, paying separately and direct to Government. The average holding is very small, about 1½ acres. The rate of assessment varies from 10*s.* annually in some parts of Amherst to 6*d.* in some parts of Sandoway, Myanoung, and Toungoo. Were there numerous roads throughout the Province cutting the country in every direction as there are in other parts of India, the rates per acre could in many cases be raised, and the land revenue be largely increased.

The revenue of the Province is derived from direct and indirect taxes; the indirect are the customs, excise, &c., and the direct are the land tax, capitation or poll tax, and the taxes on fisheries, salt, and forest produce.

Land tax.

The principle upon which the land tax is levied is as follows: the Province is divided into divisions, the divisions into districts, the districts into townships, the townships into circles, and the circles into tracts of country called "quengs," and these last constitute the smallest portion upon which a separate rate of assessment is fixed. The land revenue demand in the year under review was 309,563*l.*, showing a small falling off of 46*l.* from the previous year.

Capitation tax.

The capitation or poll tax is taken from all men who are less than 60, but more than 18 years old, married men paying twice as much as bachelors or widowers. The general rate is 10*s.* annually for the one and 5*s.* for the others; but in some places they are as low as 4*s.* and 2*s.* Government exempt from the tax all females,

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their own servants, religious teachers, students, and schoolmasters, all who are unable to earn a livelihood, and all emigrants for the first five years after they arrive in the country. In some towns a land assessment is levied in lieu of the capitation tax from which Government servants are not exempt. The demand for the year was 225,714*l.* or 5,500*l.* more than in 1867–68.

Fishery tax.

The tax on fisheries is levied in two ways, on nets or traps used, and by the sale of the fishery or pond. They are sold annually, not to the highest bidder, but at a fair valuation, and if possible, to the villagers residing near the fishery. The right of catching fish for sale does prevent any one from catching fish for his own consumption or that of his family. The demand from this source was 61,111*l.*, or 7,200*l.* more than in 1867–68.

Salt tax.

The salt tax is levied upon the pots employed in the manufacture, earthen pots holding about six gallons being charged for at the rate of from 1*s.* 6*d.* to 1*s.* for the year, and iron cauldrons at the same rate according to capacity. This is a small source of revenue, the demand being 11,000*l.* only, which, however, is more than double that of two years ago.

Revenue.

The total amount of the revenue demand under all heads is given in the following table:—

Revenue demand.

Items of Revenue demand.	Total demand for 1866–67.	Total demand for 1867–68.	Total demand for 1868–69.	Increase in 1868–69.	Decrease in 1868–69.
	£	£	£	£	£
1. Land, including collection on bees' wax, edible birds' nests, &c.	306,687	309,609	309,563	—	46
2. Fisheries	52,627	53,903	61,111	7,208	—
3. Salt	5,308	8,753	11,082	2,329	—
4. Capitation tax and land assessment in lieu	215,120	220,242	225,714	5,472	—
5. Excise, including net profit on sale of opium	87,685	93,000	111,184	18,184	—
6. Customs, including fines and confiscations	120,415	201,266	289,972	88,706	—
7. Marine	5,061	4,206	6,344	2,138	—
8. Forest revenue, including excise on foreign timber	55,186	75,669	105,713	30,044	—
9. Stamps, revenue and judicial	38,158	42,843	53,471	10,628	—
10. Postage stamps	5,599	7,009	10,590	3,581	—
11. Assessed taxes	—	13,759	9,822	—	3,937
12. Gaol manufactures	4,068	9,533	10,716	1,183	—
13. Coast lights	—	3,543	5,602	2,059	—
14. School fees	317	451	—	—	451
15. All other items	22,539	19,674	20,110	436	—
Total	918,770	1,063,360	1,230,994	171,968	4,434

It will be seen that there was the large net increase of more than 167,000*l.*, that the increase under the head customs alone was 88,000*l.*, and that the forest revenue produced 105,713*l.*, or 30,000*l.* more than in 1867–68.

Of the total demand, 1,189,708*l.* was realised at the close of the year. Of the outstanding 26,950*l.*, owing to damaged crops and murrain among cattle, it was proposed to remit no less than 14,336*l.*

Legislative.

The Administration of British Burmah has no legislative power of its own; it is legislated for by the Council of the Governor General for making laws and regulations, to whom during the year no Bills relative to it were submitted. The framer of the Administration report represents that the circumstances of British Burmah are in many points so utterly different from those of any other Government in India that local *laws* (not local rules which are subject to vacillation) duly passed by the Council, but affecting only Burmah, are much wanted.

In the two towns of Rangoon and Maulmain civil and criminal justice is administered by town magistrates and recorders. Beyond the limits of these two towns the Commissioners of divisions, Deputy Commissioners of districts, and Assistant and Extra Assistant Commissioners are the officers who administer justice. The total number of judicial officers in British Burmah is 183.

The real criminality of the population is shown by the non-bailable offences, which increased from 7,456 to 8,114, or by 8·82 per cent., the population having increased by 3·22 per cent. only. The increase was unequally spread over the Province. As to the general disposal of all non-bailable offences, 53 per cent. of those ascertained to have occurred were brought to trial, against 49 per cent. the

previous year, while the proportion of persons convicted to those brought to trial receded from 62 to 60 per cent. The total number of punishments (chiefly fines) was 18,656, against 17,830 in 1867. 16 persons were sentenced to death.

The total number of decrees passed in the Civil and Revenue Courts, superior and subordinate, was 19,317. It is important to notice the extent to which arbitration is resorted to. In a large number of disputes the people prefer to have their differences settled in their own village by their own village elder, to proceeding some distance to a Civil Court to file a plaint. They have been accustomed for ages to trust to these arbitrators (who receive a fee), and they are content with their awards, which are as binding to them as any Civil Court could make them.

The Chief Commissioner considers that on the whole the working of the various courts has improved, but that the courts of the lowest grade are in need of still further improvement. The judges are selected from amongst the most influential of the people, for an aristocracy, as usually understood, there is none, and like most Burmans they have little other education than that which they received as boys in some Buddhist monastery, and that which they have received by contact with the world. They are indeed obliged to pass examinations, but they do not understand what they learn and have little or no power of applying it. Improvement can only come from the spread of education, in a word, by the spread of civilisation in its broadest sense.

One of the great wants of British Burmah is stated to be a Judicial Commissioner, as already possessed by Oude and the Central Provinces. At present the Chief Commissioner, in addition to his many duties and responsibilities as chief executive officer, is, as chief judge, frequently a judge in his own cause, having to determine many points which intimately affect the revenue and the well-being of the Government for which he is responsible.

Prisons.

The number of prisons was the same in 1868 as in 1867, viz., two central gaols at Rangoon and Maulmain, one first-class and five second-class district gaols, and seven lock-ups. The total number of persons confined in them, including, as well as prisoners, lunatics for whom at present there is no asylum, and persons awaiting trial, rose from 3,510 to 4,156. A lunatic asylum is now being constructed at Rangoon. The gross expenditure was 25,324*l.*, or about 200*l.* less than in 1867, but a large increase in the profits arising from gaol labour reduced the net expenditure to 18,709*l.*, and the average of cost of each prisoner from 5*l.* 13*s.* 9*d.* to 5*l.* 0*s.* 5*d.*

These results are satisfactory, and it may be added that though several of the gaols were overcrowded the health of the prisoners remained very good; and that fewer escapes and outbreaks, and perhaps a somewhat severer discipline would have left nothing to be desired.

The sanctioned strength of police is 5,681. In 1868 the numbers who were discharged at their own request was 1,303, or so much as 22 per cent.; the number of policemen punished by the magistrates increased from 3·2 to 4·3 per cent. It is hoped that the better wages now offered to constables may introduce something like permanency in the service, and may introduce a better class of men.

The police schools are not kept up to teach men to read and write, but to instruct them in their police duties. The standard of education in British Burmah among the ordinary population is far higher than in India; there is no conventional distinction between the arms-bearing and the education classes.

Finance.

The revenue derived from nearly every department of the Government service increased largely during the year under review. While the total revenue of 1867–68, exclusive of Port Blair, was 1,156,685*l.*, in 1868–69 it amounted to 1,266,493*l.*, being an increase of 109,808*l.*; the charges against revenue, cost of collection, &c. amounted to 157,378*l.* in 1867–68; in the year under review they were 168,084*l.*, or about 11,000*l.* more. The actual expenditure in the two years was 738,558*l.* and 727,771*l.* respectively, and the net surplus for 1868–69 was 370,638*l.*, or greater by 110,000*l.* than in 1867–68. The most costly items of expenditure were "Law and Justice" (209,303*l.*), "Police" (134,558*l.*), and "Public Works" (253,674).

Public works.

The total allotment for public works was 303,300*l.*, against which an outlay was incurred of 253,674*l.* on imperial, and 26,215*l.* on local works, and the total expenditure was less than the total grants by about 23,000*l.* The principal heads of imperial outlay were military works, &c., civil buildings, and communication, which divided equally 177,000*l.*, and the sum

	£
Imperial - -	237,000
Local - -	66,300
Total Grant -	£303,300

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of 26,608*l.* was spent on agricultural works. The excess outlay on imperial works was mainly due to a reduction made in the Budget towards the close of the year.

A fully detailed project for the construction of a railway between Rangoon and Prome was submitted to the Government of India, and was under their consideration. For a portion of the distance two alternate lines were proposed, one lying to the west of the Pegu-Yoma range, and the other skirting the western bank of Hlein or Rangoon river. This latter line would also serve as an embankment, shutting out the floods of the river to westward, and would form a portion of the general proposal for the reclamation of vast areas of country lying to the east of the Irrawaddy. The line would be about 166 miles in length, and its estimated cost is about 1,500,000*l.*

Agriculture.

The principal crop is rice, of which there were 1,667,262 acres, or about 15,000 acres less than in 1867-68. The decrease took place in Akyab, Sandoway, Amherst, and Mergui. In Sandoway there were 25 acres of mulberries, which apparently are not grown elsewhere, though silk is made in Prome. In Akyab there are 100 acres on which tea is grown, and the tea is of very good quality. There is a very small amount of indigo cultivation, 133 acres.

Notwithstanding the murrain the number of cows and bullocks increased from 388,190 to 419,887.

The price of labour has varied but little; the wages of skilled workman is as high as 4*s.* a day in Akyab and Toungoo, and as low as 1*s.* 4*d.* in Shwè-gyeen. Unskilled labour is about 2*s.* a day in Rangoon, but the average is from 1*s.* to 1*s.* 6*d.*

Mines.

The only mines of any importance in the Province are the tin mines in the Mergui district. There is no doubt that Mergui is the richest district for minerals throughout British Burmah, and tin mines would be very remunerative if properly worked; but, as yet, excepting the Chinese, no speculative people have entered the field.

Manufactures.

The principal manufactures in British Burmah are silks, which are woven in the Prome district, where also is manufactured very good lacquered ware. The markets are for the most part in Aracan, Tenasserim, and the Straits Settlements.

Trade.

The total value of the trade of the Province during 1868–69 was 10,658,688*l.* against 9,950,987*l.* in 1867–68, an increase of 7·11 per cent. The *seaborne* trade of the year amounted to 8,544,183*l.*, and the *inland* commerce to 2,114,504*l.*, showing an increase of 15·37 per cent. in the one case, and a decrease of 16·92 per cent. in the other.

The large importation of salt from England and the continent of Europe, and the pretty ready market which the article found at lower prices than the home-made salt has hitherto realised, renders it not improbable that the local manufacture will in time be extinguished, as it has been along the seaboard of Bengal. Should this take place, the salt manufacturers will soon find abundant means of utilising their labour in this sparsely populated country, while this new and important source of freight for ships which now come to British Burmah in ballast to load with rice will doubtless lead to a reduction in the rate of freight, and place the staple of the Province in a better position to compete with the product of Cochin China and Siam.

The falling off in the inland trade through Thayetmyo and Toungoo with Upper Burmah and the Shan States does not imply that the commerce with countries beyond our frontier is declining. The year 1867–68 was altogether an exceptional one. Upper Burmah just restored to quiet, and impoverished by the rebellion which had for some time devastated the country, required more than the usual supply of goods of European manufacture, and a large quantity of rice; while with regard to imports, there can be no doubt but that produce accumulated in the hands of the people during 1866, and that immediately the country became settled every means was adopted for speedily bringing it to market.

With the commencement of 1868–69, a weekly line of steamers was established between Calcutta and Rangoon, running viâ Akyab every alternate week, with an extension to the Straits Settlements once in four weeks. The number of letters, &c. received was 631,675, against 535,954 in 1867–68, and the number despatched increased from 541,854 to 634,337.

178 schools receive aid from Government, and are supervised by the Education Department; and there are 272 unaided schools, of which more than half are mission schools. The progress has on the whole been satisfactory.

A return presented to Parliament in 1869 showed that the Government of India had taken up the question of the conservancy and control of the fisheries in India, and that the Secretary of State had acquiesced in the proposal that Dr. Day, an officer who had given his special attention to pisciculture, and had already collected much valuable information regarding the fisheries of Madras, should be deputed to investigate and report upon the fisheries of the Indian seas and rivers. Since the presentation of this return have been received two interesting papers written by Dr. Day, in which he gives the results of his examinations of the fresh-water fisheries of Orissa and the Midnapore district, and of a visit made subsequently to British Burmah for the same purpose.

As Buddhists the Burmans have a religious horror of taking the life of lower animals, but they reconcile themselves to the indulgence of their fondness for a fish diet by throwing the blame on the fishermen, whom they doom to fearful punishment in a future state. The value and importance of the fisheries of British Burmah is manifested by their producing a revenue to Government of 54,000*l.* annually in the shape of licenses and rents, and by the value of the dried fish imported from Lower to Upper Burmah, which in 1868–69 amounted to no less than 189,148*l.*, and this was about 10,000*l.* less than in 1867–68.

In Aracan the fisheries are insignificant, the rivers are few and unimportant, and the area of fresh water small. It was to the province of Pegu that Dr. Day chiefly directed his attention, and his investigations extended as far north as Mandalay, and were carried through the numerous creeks and offshoots of the Irrawaddy; he, besides, ascended the Pegu river to Pegu, and examined a portion of the Salween. Fishing is said to be not much carried on in Upper Burmah; there seem to be no tanks for breeding, and the rainfall is so scanty that but for the snow-water, or some such cause, which keeps the river full, the fish would not be able to push up the stream at the proper season to deposit their ova. When the Irrawaddy passes the frontier, the natural tanks and subdivisions of the stream increase, and the fisheries become more numerous; the further it flows south, moreover, the heavier is the rainfall, which, added to the snow-water from the mountains far away in Upper Burmah, swells the river to overflowing, and fills all the tanks in its vicinity. As the sea is approached, more and more branches are distributed; the lakes are neither numerous nor large, one near Meanoung, seven miles in length and three or four in width, being the most important; and there are many marshes which during the rains become useful for fishing stations.

Pachan in Upper Burmah	-	2	inches.
Thyetmyo in Lower Burmah	-	20	„
Prome	„ „	47	„
Meanoung	„ „	52	„
Rangoon	„ „	110	„

With regard to the mode of letting the fisheries, the amount of rent which should be paid for each fishery is decided at every successive letting, and the lessee is selected from certain known persons living in the neighbourhood. All licenses for nets and traps, and all leases of lakes and ponds, are annual, and terminate on the 30th April, at whatever period of the year they may have been granted. The general public are permitted to take free of charge what they require for home consumption; certain small creeks also are left free, and it is directed that the fisheries shall be reduced in extent as much as possible to enable the poor people to become renters.

Dr. Day finds fault with this mode of letting, and with the total absence of any rules for the preservation of the fish. He would substitute letting by auction, as pursued in Madras, and has not that fear that the gambling propensities of the Burmans would lead to reckless bidding which is the reason for the present system; by degrees he would introduce five year leases, while to check the present wholesale destruction of the young fish, into which his report goes at some length, he would forbid the use of nets smaller in the mesh than one inch from knot to knot, and altogether interdict the bunding of rivers for fishing purposes. These, with the appointment of an Inspector of Fisheries with magisterial powers, and two assistants, are Dr. Day's principal recommendations. To conclude with an extract from the report, which illustrates all the faults of the present system. He met a fisherman who "formerly cultivated tobacco and rice, but who, as soon as he obtained a

" fishery, gave up all cultivation. He rents by the year, and his weir is intended to
" take everything; he bales out the water, and lets nothing escape. This fisher-
" man was very plain spoken, and said, if any regulation were made making one inch
" the least distance between bamboos forming weirs, he should require a decrease of
" rent. He allowed such in time must work good, but remarked that as he was
" only a yearly tenant he got all he could, because next year the fishery might be
" given to some one else."

W. N. STURT.

India Office,
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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

DURING THE YEAR 1869-70.

(PRESENTED TO PARLIAMENT BY HER MAJESTY'S COMMAND.)

Ordered, by The House of Commons, *to be Printed,*
15 *May* 1871.

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A MAP OF INDIA
Statute Miles
Railways & Stations Proposed & in Progress
The territory under British administration is coloured Red Yellow
CHINESE EMPIRE
TIBET
NEPAUL
BHOTAN
ASSAM
BURMAH
ARAKAN
PEGU
TENASSERIM
ANDAMAN I.
NICOBAR I.
CEYLON (Colonial Possession)
AFGHANISTAN
Kelat
Cabul
Peshawur
Attock
Cashmere
Srinagur
Lahore
Ferozepore
Jellalpoor
Loodiana
Simla
Umballa
Sabarunpore
Meerut
Delhi
Kurnaul
Agra
Allyghur
Muttra
Futtehpore
Cawnpore
Lucknow
Allahabad
Benares
Patna
Mirzapore
Jubbulpore
Rewah
Gwalior
Neemuch
Indore
Oojein
Mhow
Baroda
Surat
Broach
Tapty R.
Nerbudda R.
Kandeish
Aurungabad
Ahmednuggur
Poonah
Sattara
Kolapore
Belgaum
Dharwar
Goa
Canara
Bednore
Mangalore
Seringapatam
Bangalore
Salem
Coimbatore
Trichinopoly
Madura
Tanjore
Pondicherry
Cuddalore
Vellore
Nellore
Ongole
Guntoor
Masulipatam
Hyderabad
Warora
Nagpore
Chanda
Sumbulpore
Raipore
Sirgoojah
Ramgurh
Hazareebaugh
Monghyr
Bhaugulpoor
Rajmahal
Moorshedabad
Burdwan
Hooghly
Calcutta
Chittagong
Arracan
Akyab
Ramree I.
Cheduba I.
Prome
Rangoon
Martaban
Mergui
Tavoy
Amherst
Moulmein
Bassein
Mandelay
Ava
Bamo
Yunnan
Lassa
Batang
Tali
Sudiya
Bhamo
Kandy
Trincomalee
Jaffna
Manaar
Paumben Pass
Adam's Bridge
Gulf of Manaar
Gulf of Cambay
The Runn
Cutch
Guzerat
Kattywar
Bombay
Surat
Broach
Baroda
Indore
Oojein
Neemuch
Gwalior
Agra
Delhi
Meerut
Umballa
Simla
Lahore
Ferozepore
Jellalpoor
Loodiana
Cashmere
Srinagur
Peshawur
Cabul
Kelat
Jeysulmeer
Beekaneer
Jessulmeer
Jodpore
Ajmere
Kishengurh
Jeypore
Oodeypore
Kerowlee
Gwalior
Bundelcund AGENCY
Rewah
Sohagpore
Mirzapore
Allahabad
Futtehpore
Cawnpore
Lucknow
Benares
Patna
Monghyr
Rajmahal
Moorshedabad
Burdwan
Hooghly
Calcutta
Chittagong
Arracan
Akyab
Ramree I.
Cheduba I.
Prome
Rangoon
Martaban
Mergui
Tavoy
Amherst
Moulmein
Bassein
Mandelay
Ava
Bamo
Yunnan
Lassa
Batang
Tali
Sudiya
Andaman I.
Nicobar I.
Ceylon

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

DURING THE YEAR 1869-70.

INTRODUCTION.

BEFORE reviewing in detail the events of the year in the several Administrations and Provinces, the following brief observations, applicable to India generally, may be interesting.

Happily, the nearly universal drought, by which the year 1868-69 will long be remembered, was not repeated in British India in the year under review, but in Central India and in the North West Provinces the early rains were scanty, and there was for some time a good deal of anxiety as to the future. In the Punjab also, the year was throughout one of scarcity and distress, though not of actual famine; and in every Province where the famine prevailed in 1868-69, fever, and to a small extent cholera, found easy victims in a people already weakened by the trials they had passed through. In the large collection of independent States of Rajpootana, however, the year 1869-70 was hardly less disastrous than its predecessor. The greater scarcity which had there prevailed was followed by disease of a more violent character; and, to crown the misfortunes of the people, locusts in large numbers visited the Province and destroyed the growing crops. The deplorable condition of Marwar is graphically described by Colonel Brooke, and years must elapse before that district and others can be expected to recover from their two years sufferings.

Two political events of unusual interest marked the beginning and the end of the year. The Amir's visit to the Viceroy was noticed in last year's Report, and it is unnecessary to recount the brilliant reception he received at Umballa. Impressed with the evidence of a higher order of civilisation, with which he was then for the first time brought in contact, he introduced without loss of time, on his return to his country, a series of, in the main, useful reforms, which, if not at once popular, should in time give stability to his Government. The visit of H.R.H. the Duke of Edinburgh was important for two reasons; first, because it was the only occasion on which a Prince of the Royal Family of England has set foot in the Indian Empire; and, secondly, because of the display of gladness with which the native Princes and inhabitants welcomed the arrival of a son of Her Gracious Majesty. Very many of the chiefs testified their loyalty in a practical manner by founding educational scholarships and building schools in commemoration of the event. The chief remaining political events of the year were the pacification of the Agror Valley, and its removal by a legislative Act from the jurisdiction of the ordinary courts; the arrest of the ringleaders of what

has been proved to be a widespread conspiracy on the part of the Wahabee sect of the Mussulmans; and the opening of the Suez Canal, which promises to have an important bearing upon the commerce of India.

The year 1868-69, closed with an excess of expenditure over income of 2,774,030 *l.*; the year 1869-70 with an excess of income over expenditure of 118,669 *l.*, excluding, in both years, those public works which are constructed by means of loans, and are termed "extraordinary." The accompanying Statement shows that the total revenues of India for the year under review reached the sum of 50,901,081 *l.*, or nearly 51 millions sterling; and that the expenditure for the same period amounted to 50,782,412 *l.*

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69.		EXPENDITURE.	1869-70.	Compared with 1868-69.	
		Increase.	Decrease.			Increase.	Decrease.
	£.	£.	£.		£.	£.	£.
Land Revenue	21,088,019	1,161,848	—	Interest on Funded and Unfunded Debt	2,773,414	—	124,507
Tributes and Contributions from Native States	765,126	77,763	—	Interest on Special Loans for Public Works			
Forest	471,590	64,248	—	Interest on Service Funds and other Accounts	627,267	28,423	—
Abkaree (Excise)	2,253,655	—	—	Allowances, Refunds, and Drawbacks	465,094	—	88,398
Assessed Taxes	1,110,224	601,524	—	Land Revenue	2,174,779	31,960	—
Customs	2,429,185	—	263,570	Forest	313,477	53,013	—
Salt	5,888,707	300,467	—	Abkaree (Excise)	256,528	—	45,756
Opium	7,953,098	—	500,267	Assessed Taxes	41,701	19,021	—
Stamps	2,379,316	72,345	—	Customs	181,456	5,576	—
Mint	157,214	—	36,574	Salt	391,485	31,761	—
Post Office	711,698	3,906	—	Opium	1,820,683	100,572	—
Telegraph	202,932	—	53,089	Stamps	100,913	5,494	—
Law and Justice	801,954	—	92,902	Mint	88,049	—	2,685
Police	287,549	10,312	—	Post Office	649,934	72,380	—
Marine	329,953	—	358,131	Telegraph	457,175	45,294	—
Education	74,889	1,178	—	Allowances to District and Village Officers	283,609	—	59,080
Interest	336,376	111,853	—	Administration and Public Departments	1,226,972	28,573	—
Miscellaneous	1,446,982	187,190	—	Law and Justice	2,903,454	58,007	—
Army, Miscellaneous	1,060,423	—	41,080	Police	2,434,735	—	41,845
Public Works, Miscellaneous	957,714	404,409	—	Marine	934,044	143,265	—
		2,997,043	1,375,694	Education, Science, and Art	868,626	31,636	—
		1,375,694		Ecclesiastical	161,083	—	2,507
				Medical Services	443,074	62,713	—
				Stationery and Printing	253,325	9,450	—
				Political Agencies, and other Foreign Services	384,897	63,720	—
				Allowances and Assignments under Treaties and Engagements	1,844,279	99,207	—
				Miscellaneous	754,207	235,856	—
				Superannuation, Retired, and Compassionate Allowances	592,752	—	118,677
				Army	12,828,750	—	160,816
				Public Works, Ordinary: Public Works, including Supervision and Cost of Land for Railways, and Loss by Exchange on Railway Transactions	5,107,259	—	1,326,258
						1,125,921	1,970,529
							1,125,921
TOTAL, India £.	50,706,604	1,621,349		TOTAL India £.	41,363,021	—	844,608
England: Telegraph and Miscellaneous Receipts	194,477	17,041		Expenditure in England	6,458,211	—	86,197
				Ditto - ditto - for Stores transmitted to India	1,414,116	—	170,098
				Guaranteed Interest on Railway Capital, less Net Traffic Receipts	1,547,064	—	153,406
TOTAL, India and England £.	50,901,081	1,638,390		TOTAL India and England £.	50,782,412	—	1,254,309

Independently of the increase under land revenue, which was exceptional, the great improvement in 1869-70, when compared with 1868-69, was mainly attributable to the steps taken by the Governor General in Council for adding to the assessed taxes and salt duties, and especially for restricting expenditure on ordinary public works.

For

For a net expenditure in India and England of 15,247,000 *l.* a military force of 190,662 officers, non-commissioned officers, and men was maintained in India during 1869-70. The British cavalry and infantry, after certain reductions since carried out, comprise respectively at the present moment, nine regiments of 455 men and 50 regiments of 885 men, officers being excluded in both cases. General Norman is of opinion that these British forces can bear no further reduction, but hopes that some economy may be effected in departments, and especially in the Overland Transport Service. The health of the troops generally in 1869-70 was good, the death-rate throughout Bengal amounting only to an average of 21½ per thousand. The Government is fully sensible of the advantage of having troops in the hills, and several stations are in course of formation, on the lower range of the Himalayas, at Puchmurree in Central India, and elsewhere.

Military Force in 1870-71.	
British officers - - -	6,545
British non-commissioned officers and men - - -	60,425
Native soldiers - - -	122,122
Field guns - - - -	484

It is believed that the comparative statements of Receipt and Expenditure, which are for the first time embodied in this Report, will prove to be at once interesting and useful.

THE GOVERNMENT OF INDIA.

THE GOVERNMENT OF INDIA.

THE Supreme Government, which passes in review the entire administration of India, consists of the Governor General and his Council of five members; the Commander in Chief, whose duties frequently oblige him to be absent, being an "extraordinary" member. The business of the Government is conducted in five separate departments—Financial, Home, Foreign, Military, and Public Works; each department is under the charge of a Secretary, and each is besides, the special care of a member of the Supreme Council, who has authority to deal with affairs of routine and minor importance, and to select what is worthy of the consideration of the Governor General and his collective council. Formerly all the business was dealt with by the council collectively, and the present form of Cabinet Government was the necessary result of the enormous increase of territory, and consequent pressure of business which took place during Lord Dalhousie's administration. It has been usual for the Governor General to superintend the political business of the Foreign Office; but Lord Mayo, since he entered on office, has, in addition, taken under his special charge the department of Public Works, which at present has no recognised head in the council, and is directing his attention to the introduction of a better organisation into this important branch of the administration. The Financial Department is concerned, not with revenue business, but with matters involving a permanent charge on the State. The Foreign Department corresponds directly with the political agents of Rajpootana and Central India, and the Commissioners of Mysore and the Assigned Districts. Formerly it took charge of business coming up from the Non-regulation Provinces, the Home Department exercising a similar supervision over the Regulation Provinces; but since, of recent years, the principal differences that marked the two systems have been removed by the introduction of the penal and criminal procedure, and the work of the Home Department has been much increased in consequence, the telegraphs have been taken over by the Foreign Department, while the Post Office has been placed under the Financial Secretary. The Legal member takes charge of Government Bills in the Legislative Council. This council consists of twelve members (besides the seven members of the Executive Council), of whom one-half must be unconnected with the public service. The six official members are civilians of experience, chosen from different parts of the country; as non-official members, two leading Calcutta merchants have hitherto been appointed, and four natives of rank, also chosen from different parts of the country. Bengal, Madras, and Bombay possess Councils of their own, and the Council of India therefore legislates for those provinces which are unprovided with Local Councils, or on matters of general importance. The debates are open to strangers, and the Governor General has the power of veto over all measures passed.

Twenty-nine Acts were passed by the Legislative Council between the 1st June 1869 and the 5th April 1870. Taking first the Acts of 1869. Act XV. provides for the issue of commissions for the examination of prisoners, and for the service of process upon them. Act XVI. excludes the ordinary Civil Courts from the cognisance of suits in the Bhután Dooars, it being rightly considered that however qualified these courts may be to decide cases of complexity, they are bound by strict rules of evidence, are unable to entertain considerations of expediency, and are therefore unsuited for a newly-acquired and barbarous country. The object of Act XVIII. is to consolidate and amend the law relating to stamp duties. Act XXI. is directed against vagrancy in India of persons of European, American, and Australian extraction. The police are empowered to bring any person apparently a vagrant before a police magistrate or justice of the peace. If he cannot obtain employment he is required to go to a Government workhouse. If, however, he is likely to obtain employment every assistance is given him to enable him to carry out his object. Act XXII. removes the Garó Hills, another wild tract of country, from the jurisdiction of the tribunals applicable to the Regulation Provinces. Act XXIII. raised the income tax for the second six months of the financial year from one to two per cent. Act XXIV. raised the price of salt in Madras from 3*s.* 4½*d.* to 4*s.* per maund, and the duty on salt in Bombay from 3*s.* to 3*s.* 7½*d.* Act III. of 1870 deals with the Agror Valley, as does Act XXII. of 1869 with the Garó Hills. Act VII. of 1870 (the Court Fees Act) is the result of the experience that the tentative rate of stamp fees fixed by Act XXVI. of 1867 was too high, and had a repressive effect on the general litigation

litigation of the country. Act VIII. is directed against female infanticide, a crime which seems to be specially prevalent amongst the Rajpoots of the north. The cause of the crime is twofold; first, the enormous cost of marriage ceremonies, which are invariably defrayed by the father of the bride; secondly, the effect of immemorial custom. The Act accordingly places a restraint on the extravagant expenditure on marriages; and, by introducing a strict system of registration of births and deaths, attempts to put down the custom of infanticide. Act XI. establishes a primary standard of weight equal to the French kilogramme, and a primary standard of length equal to the French mètre. Act XVI. raises the income tax from one per cent. to $3\frac{1}{8}$ per cent.; the rate being fixed, not as heretofore, at a per-centage of the income, but at six pies in the rupee.

Finance.

Bearing in mind that the account of the Government of India is debited with the Army charges of the whole of British India, Bombay and Madras excepted, with all the interest on the funded and unfunded Indian debt; and, moreover, that "Post Office" and "Telegraph" are items which appear in this account only, there is little to call for remark in the accompanying statement, which speaks for itself. The increase, however, under two heads of receipt, "Land" and "Tributes," needs explanation. That under the first head (378,813 *l.*) arises solely from the sale of waste lands, of which the sum of 288,000 *l.* was invested in Government securities. The permission given to Holkar to compound for his tribute, by the payment of a lump sum, accounts for the increase of 107,000 *l.* out of the total increase under that head. Under three heads of expenditure—"Refunds," "Pensions," and "Public Works"—there was a considerable saving, and the net result is 954,771 *l.* better than that of 1868-69.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69.		EXPENDITURE.	1869-70.	Compared with 1868-69.	
		Increase.	Decrease.			Increase.	Decrease.
	£.	£.	£.		£.	£.	£.
Land Revenue	409,090	378,813	—	Refunds and Drawbacks	12,000	—	203,699
Tributes from Native States	186,917	116,646	—	Land Revenue	12,573	83	—
Forest	10,957	992	—	Forest	6,340	2,033	—
Excise on Spirits and Drugs	11,784	—	1,316	Excise on Spirits and Drugs	770	292	—
Assessed Taxes	39,692	22,724	—	Stamps	297	25	—
Stamps	5,959	768	—	Mint	46,808	4,303	—
Mint	75,266	—	28,719	Post Office	649,934	72,380	—
Post Office	711,698	3,906	—	Telegraph	457,175	45,294	—
Telegraph	202,932	—	53,089	Allowances, &c. under Treaties	163,761	149	—
Law and Justice	38,773	4,239	—	Total Direct Claims on Revenues	1,349,658	124,559	203,699
Police	20	—	38	Administration	382,614	54,658	—
Education	2,025	—	4,425	Minor Departments	185,245	12,830	—
Interest	202,925	19,636	—	Law and Justice	150,896	18,364	—
Miscellaneous	705,919	43,466	—	Police	10,153	551	—
Army, Miscellaneous	549,897	130,242	—	Marine	45,341	45,341	—
Public Works, Miscellaneous	16,342	—	2,011	Ecclesiastical	9,905	—	645
Railways (Gain by Exchange)	148,147	90,206	—	Medical Services	461	149	—
				Stationery and Printing	70,898	11,126	—
				Political Agencies	109,122	41,910	—
				Miscellaneous	307,988	121,279	—
				Pensions, &c.	84,314	—	157,755
				Army	6,973,845	—	37,989
				Public Works, Ordinary:			
				Public Works	367,529	—	209,764
				Railways, loss by Exchange	61,126	61,126	—
				Interest on Funded and Unfunded Debt.	2,773,414	—	16,851
				Interest on Special Loans for Public Works.	—	—	107,656
				Interest on Service Funds, and other Accounts.	401,115	9,735	—
£.	3,318,343	811,638	89,598	£.	13,283,624	501,628	734,359
Deficit	9,965,281						
£.	13,283,624						
		Net Increase, £. 722,040				Net Decrease, £. 232,731.	

Passing now to the yearly review of those States whose relations with the Supreme Government are more intimate than the eight local administrations which make up British India proper, attention is specially directed to the following abstract of the Report of the Resident of Hyderabad. It would be difficult to speak too highly of the care with which Mr. Saunders has prepared his

BERAR.

Report, and of the interest which he has infused into it. It is to be regretted that the Report of the Governor General's Agent for Central India had, at the time of going to press, not been received.

The Resident at Hyderabad exercises both administrative and political functions: *administrative* in respect of certain districts of his Highness the Nizam's dominions, the management of which is vested in British officers acting under his authority; *political* in regard to that portion of the Hyderabad country which is immediately under the Native Government itself, and where the Resident's influence is indirect only. Accordingly Mr. Saunders divides his Report into two parts: the first embracing the Hyderabad Assigned Districts, where the Resident wields the powers of a local Government; the second noticing more briefly Hyderabad under the rule of the Nizam.

BERAR.

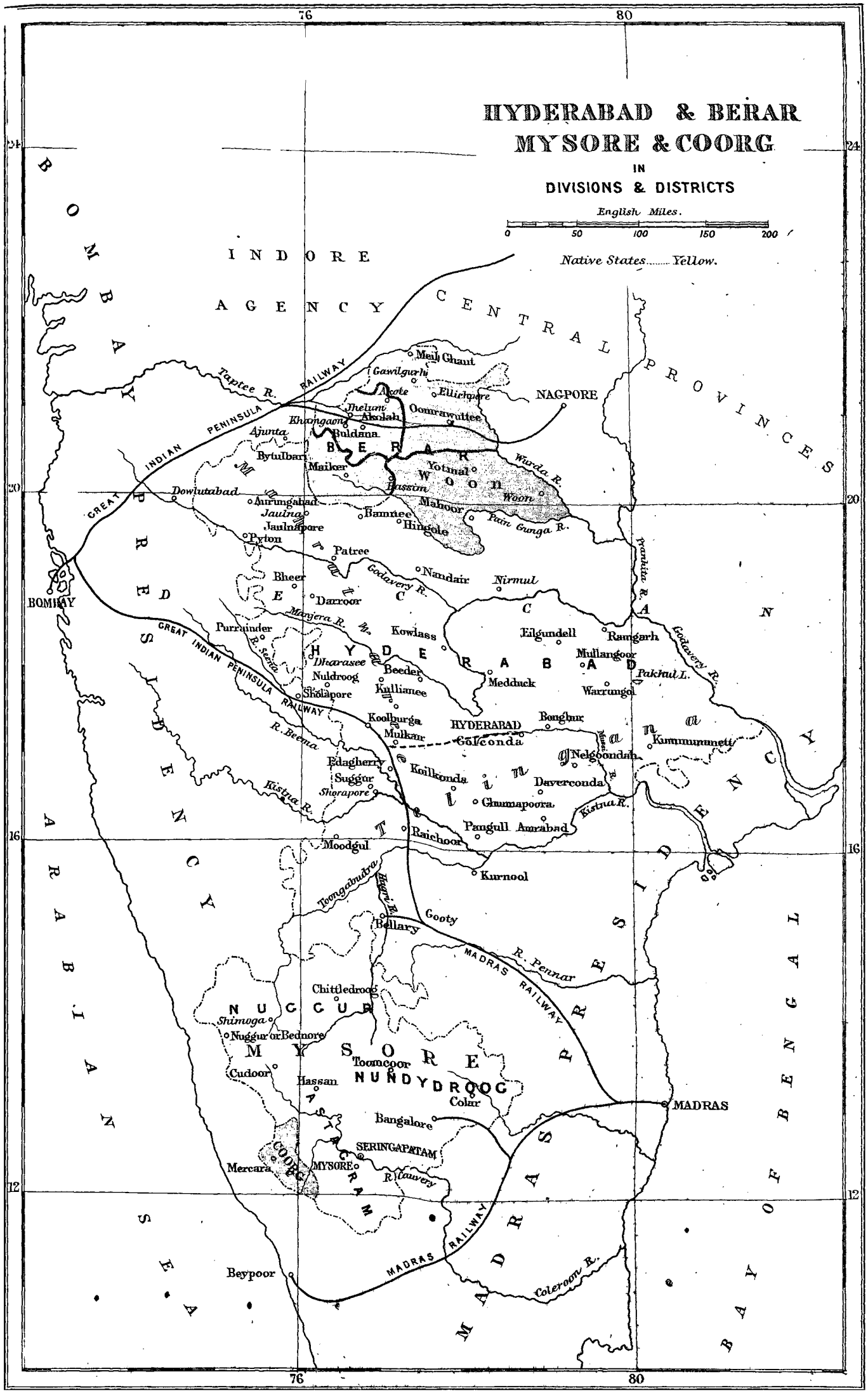
BERAR (Hyderabad Assigned Districts).

There are two military establishments for the maintenance of peace in the Hyderabad State. The "Hyderabad subsidiary force," though primarily designed for the protection of the Nizam's capital, is also considered as a contribution on his part to the military resources of the Empire at large, and is provided for out of the resources of the "ceded districts," which form a part of the Madras Presidency. The "Nizam's army" is a small force disciplined on the irregular system, and commanded by British officers. The pay of this force was constantly falling in arrear, to the inconvenience of the British officers who commanded it, and the detriment of the efficiency of all ranks, and at length it became necessary to place before the Nizam the alternative of disbanding the force, or discovering some means for ensuring its regular payment. The Nizam chose the latter course, and in 1853 placed certain fertile districts in the hands of the Resident to be administered on our system, stipulating that what was requisite of the revenue so realised should be devoted to the payment of the force in question, and that the surplus should be handed over to him. By a later Treaty in 1861, the British Government, actuated mainly by a desire to reward the Nizam for his loyal bearing during the Mutiny, restored a considerable portion of the original assignment to his own direct management; and the Hyderabad Assigned Districts in their present form are composed entirely of the Valley of Berar, which extends from the confines of the Central Provinces on the east, to those of the Bombay Presidency on the west; with the Sautpoora range of mountains as its northern, and the Ajunta range and the Paeen-Gunga river as its southern boundaries. The area thus circumscribed is a little less than 18,000 square miles, and has a population estimated at three millions. The people are essentially peaceful, not a soldier of the regular army being required to garrison Berar. The natural capabilities of the province, with its soil, forming one vast superstratum of black loam on a base of trap and basalt; its regular and abundant rainfall; its extensive cotton-fields, and its numerous streams, could hardly be surpassed; while a railway, traversing the entire length of the valley, fills its marts with merchants, and carries off its products rapidly and cheaply to the great centres of trade. The two principal towns of Berar are Oomrawuttee and Khamgaon. The former is the official capital of East Berar, and has a population of 23,410, among whom are many wealthy traders. The latter, Khamgaon, although its fixed population barely exceeds 10,000, is the largest cotton market in India. During the five months of the year when the cotton trade is at its height, and when strangers from other quarters, to the number perhaps of 5,000, throng its streets, money to the amount of a million sterling changes hands in its bazaars. The opening of a branch line from Khamgaon to the Jhelum station of the Bombay and Nagpore Railway supplied a want that had long been felt.

The whole province is divided, for purposes of administration, into East and West Berar, each having its own Commissioner, who is subordinate only to the Resident. Five deputy commissioners, 15 assistants, and eight extra assistants, complete what may be called the upper and middle portions of the administrative structure proper. Apart from fortuitous circumstances, such as the American War, which made cotton the absorbing product, the history of this province during the 10 years it has been in our hands deserves the consideration of all who have any doubt with respect to the comparative superiority of British or native rule.

The gross provincial revenue has gradually risen from 420,905*l.* in 1862-63 to 704,500*l.* in 1869-70. Cheap and prompt justice has been brought within the reach of all. A settlement of the land revenue, the basis of all sound agri-

cultural


HYDERABAD & BERAR
MYSORE & COORG
IN
DIVISIONS & DISTRICTS
English Miles.
0 50 100 150 200
Native States.....Yellow.
76
80
24
20
16
12
BOMBAY
INDORE
AGENCY
CENTRAL PROVINCES
BOMBAY PRESIDENCY
ARABIAN SEA
BAY OF BENGAL
MADRAS PRESIDENCY
NAGPORE
BOMBAY
MADRAS
HYDERABAD
Golconda
Kurnool
Bellary
Gooty
Chittledroog
Shimoga
Nuggur or Bednore
Cudoor
Hassan
Toomcoor
Colar
Bangalore
SERINGAPATAM
MYSORE
Mercara
Beypoor
Kistna R.
Godavery R.
Pranhita R.
Wurda R.
Pain Gunga R.
Taptee R.
Manjera R.
R. Beema
R. Pennar
R. Cauvery
Coleroon R.
Tungabudra
Hugri R.
Pakhul L.
Mussi R.
GREAT INDIAN PENINSULA RAILWAY
MADRAS RAILWAY
Meil Ghaut
Gawilgurh
Akote
Ellichpore
Jhelum
Akolah
Oomrawuttee
Khamgaon
Buldana
Ajunta
Bytulbari
Maiker
Yotmal
Bassim
Woon
Mahoor
Dowlutabad
Aurungabad
Jaulna
Jaulnapore
Bamnee
Hingole
Pyton
Patree
Nandair
Nirmul
Bheer
Darroor
Purrainder
Kowlass
Eilgundell
Ramgarh
Mullangoor
Dharasee
Beeder
Nuldroog
Kullianee
Medduck
Warrungol
Sholapore
Koolburga
Mulkair
Bonghur
Kummummett
Edagherry
Suggur
Shorapore
Koilkonda
Nelgoondah
Daverconda
Ghumapoora
Pangull
Amrabad
Raichoor
Moodgul
Toongabudra
Gooty
Bellary
Telingana
BERAR
WOON
HYDERABAD
NUGGUR
MYSORE
NUNDYDROOG
ASTAGRAM
COORG

BERAR.

cultural prosperity in India, is approaching completion. A scientific system of forestry is being introduced. Police establishments have gradually been organised, and the old fashioned gaols have been replaced by new ones. Last, but not least, education has been offered to all classes of the people, and is more widely appreciated every year. The construction of courts of justice, schools and gaols, of railways and roads, has necessarily been costly, but many of these causes of outlay belong to the early stage of administration, and do not recur. The cost of the "Hyderabad Contingent," which forms the primary charge on the finances of the province, has, owing to no increase of strength, but to other unavoidable causes, increased from 241,000 *l.* in 1862-63, to 303,200 *l.* in 1869-70; and yet, after these heavy military and administrative charges, nearly a quarter of a million sterling has accrued to the Nizam as surplus revenue since the assignment, the last instalment of 100,000 *l.* having been paid quite recently; and inasmuch as the realisations of the year under review considerably exceeded the estimate, a still further balance in favour of his Highness was shortly expected to be available. The Resident thus concludes his introduction to the year's Report: "I think it may fairly be said that the administration of Berar by our Government has proved as advantageous to his Highness the Nizam as it is conducive to the material and moral well-being of its inhabitants. In less than 10 years the revenue has been raised by 280,000 *l.* per annum. Funds have also been provided for the requirements of a body of soldiers, which his Highness, when the burden of their maintenance rested on his own Government, found it impossible to pay, and yet absolutely declined to dispense with; and it is further hoped that in attaining all these ends three millions of people have been enriched with many of the benefits which it specially belongs to the British administration to bestow, and have been placed *en rapport* with a higher form of civilisation than they could otherwise have participated in for perhaps centuries to come."

JUDICIAL.

Owing to the peculiar status of Berar, enactments of the British Legislature do not *ipso facto* become applicable to that province, but only when it is considered that they may advantageously be extended to it. The laws and regulations which have from time to time been made applicable to Berar were during the year under review codified in an excellent manual by the Commissioner of West Berar.

Civil Justice.—There were, during 1869-70, 44 courts of civil justice, 24 belonging to East and 19 to West Berar; 41 having original, and three, namely, the Resident's Court and the Courts of the two Commissioners, having appellate jurisdiction. A diminution in the number of suits from 16,867 in 1868, to 15,798 in 1869, was accompanied by a diminution in their value from 187,951 *l.* to 179,915 *l.* This decrease of litigation is due to the greater caution exercised by traders in drawing up their contracts, compared with the unbusiness-like nature of the transactions which arose out of the sudden and enormous demand for cotton during the American War. Mr. Saunders's remarks as to the possibility of making the local knowledge and experience which belong to the native more directly available than now to the foreign judge in civil lawsuits, have a wide application. Their fulfilment, coupled with the fact (which is fully appreciated by the natives themselves) of the British officer being raised above the influences which not unfrequently serve to render native tribunals corrupt, would leave nothing to be desired.

Criminal Justice.—There were 61 courts of original jurisdiction open during the year, of which the Courts of the Assistant Commissioners and the Tahseeldars performed the heaviest portion of the judicial work. There is at present but one native honorary magistrate in the province. The Resident is, however, fully alive to the benefits that would result from making this agency more general throughout the province.

Briefly stated, the results of the year show that, compared with the previous year, there was an increase of 31 per cent. in reported crime; attended, however, by a marked decrease in heinous offences and especially in dacoitee, once the opprobrium of Berar; and that there was a slight increase in the proportion of convictions to acquittals.

POLICE.

The vast increase in trade; the ancient habit with the people of hoarding gold and silver in their houses, which Banks and the introduction of currency notes have not had time to overcome; the pusillanimity of the villagers generally,

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and the small assistance afforded by them to the police; the exposure of the province to the influx of marauders or unemployed adventurers,—all these causes and others go to make the Assigned Districts a difficult charge and the duties of the police force arduous. Some tribes, such as the Rahturs and Meenas, are born dacoits, with whom robbery is a profession, a faith, and a mission; not until their fraternities have been broken up, and their children educated amid new influences, will their characteristics be changed. Besides these tribes, the Banjarees, or wandering grain merchants, who regularly move about Berar, to the number of more than 50,000, are identified with the past history of violent crime, and still call for constant vigilance on the part of the police. The Banjarees are interesting as being descendants of those who supplied rice for the armies of Lord Lake and Lord Wellesley, and they are by many thought to be related to the gipsy tribes of Great Britain.

The regular police force at the close of the year numbered 2,625 men (or one to about every 858 of the population), and cost 48,640 *l.* Their action in dealing with the increase of crime has been satisfactory. Here, as all over India, the police fail in the point of detective ability, and the reason is thus explained by Mr. Saunders: "The instincts of the Native policeman lead him to adopt "strenuous, if not violent, measures for the detection of a crime immediately "after it has occurred; and failing complete success, to let it slip from his view "altogether. Our system is different; for it not only checks the random or "indiscriminate arrests to which he is prone, but altogether forbids those prac- "tices bordering upon torture by which he loves to extract confessions and cut "short his labours." In fact, the old and pernicious habits have been abandoned, but the sounder methods have not yet been fully acquired in their stead. On the whole, however, as has already been said, the results of the year, in spite of many difficulties and disadvantages, are pronounced favourable.

Gaols.

Gaol administration, strictly so called, was first introduced only three years ago. There are now two central gaols (at Akolah and Oomrawuttee), and three lock-ups. The daily average of prisoners confined in them was 1,011, of whom about 10 5 per cent. were old offenders. Their total earnings amounted to 2,980 *l.*, and their net cost 6,014 *l.*, or 5 *l.* 19 *s.* per head; a high average, chiefly attributable to the dearness of provisions. Good results will doubtless follow the recent appointment of a special officer to the charge of the provincial gaol administration.

REVENUE.

The treaty stipulations under which we hold Berar give it a complete immunity from the liabilities which fall to the lot of the other provinces of British India; no portion of its revenue goes to compensate for the shortcomings of less fertile tracts in other parts of India; and to illustrate the manner in which the expenditure is limited to provincial charges, it may be mentioned that the rest-houses recently erected for the use of British troops passing through Berar were paid for from the Imperial and not from the Berar exchequer. This happy condition is furthered by the fertility of the soil of Berar itself, much of which lay fallow for years previous to the assignment, and still more so by its forming the heart of the cotton trade in India. It would be well, indeed, if every administration in India could be made to supply its own wants as well as this province does; to contribute to the defence of the Empire at large in the same proportion in which Berar does to that of the Nizam's territory; and to yield, without an approach to direct taxation, as considerable a cash balance as that which is derived from Berar.

Land.

The ryotwaree system of settlement, which has prevailed from time immemorial in Berar, and which, while securing to the cultivator a 30 years' tenure, leaves him free to enlarge or diminish the extent of his holding at the close of every year, has proved itself admirably suited to these districts where the cultivators have been steadily increasing in number, owing to immigration from various quarters, and where a remarkable increase in the area under cultivation, and in the value of the land itself, has been going on.

In the year under review, the demand on account of land revenue was 448,090 *l.*, and nearly the whole of it was collected. This sum represents the considerable increase of 13,214 *l.*, which is attributable, among other causes, partly to the effects of the ryotwaree system already noticed, and partly to the total area under cultivation having been increased by about 313,654 acres. No necessity arose for assisting the cultivators with advances of the kind known as tukavee,

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tukavee, which are usually granted during periods of distress; but it is under consideration whether it would not be advisable to induce the farmers, by means of these repayable grants, to undertake small irrigational and other works of permanent utility for the improvement of their holdings.

Salt.

Salt forms in Berar the one taxed staple. The increase in the revenue derived from this article is the more satisfactory from its occurring simultaneously with a reduction of the rate of duty from 3 *s.* to 2 *s.* 4 *d.* per maund, and is ascribed to the people of Berar having to rely more exclusively on legalised supplies. This view is borne out by the fact of the salt imported into Berar in 1869 having exceeded the quantity imported in 1868 by 16·27 per cent.

	£.
1868-69 -	30,029
1869-70 -	31,600

Abkaree.

The exclusive right to sell spirits and drugs throughout a certain district is annually sold by auction, and as the competition for the purchase of these monopolies is usually keen, a considerable revenue is the result. In the year under review, abkaree brought in 114,500 *l.*, or nearly 28,000 *l.* more than in 1868-69; the increase in the single item of country-made liquors being no less than 19,115 *l.*

Public Works.

The total expenditure on Public Works Ordinary during the year was 77,000 *l.*, of which 23,134 *l.* went to the Khamgaon Branch Railway. This line, connecting Khamgaon with the great Indian Peninsula Railway at Jhelum, has a total length of eight miles. It was commenced on the 19th of June 1869, and opened by the Viceroy on the 4th March following. Besides being important commercially, it is interesting as being the first State railway constructed by Government in India. The total estimate for its construction amounted to 45,089 *l.*

The expenditure on Public Works from local and municipal funds was nearly 40,000 *l.* The condition of the towns is being improved, and the municipal committees work well.

Education.

The staff of the Educational Department consists of a director of public instruction, two divisional and six deputy inspectors, and 506 schoolmasters of all grades. It is, besides, considered the duty of every officer of the Civil administration to promote the cause of education throughout his district by his personal interest and influence. There were 339 schools of all classes, and the average daily attendance increased from 9,785 to 11,264 scholars. The expenditure at the same time increased from 23,979 *l.* to 27,660 *l.* About every 50 square miles of the province has now its school; while one in about every 150 of the population is under instruction. These results are satisfactory, when it is considered that a State system of education was introduced so recently as 1866. The inhabitants do not come forward as liberally as could be wished to assist the State, but it is believed that education is gradually becoming popular, and that it would not be wise unduly to press the people for contributions towards its diffusion. A slight decrease in the number of pupils learning English is a wholesome indication that a good vernacular education is the first need. It is now compulsory on every pupil to join the vernacular classes, while English and Sanskrit are optional subjects. By public meetings and other means, endeavours were made during the year to induce the inhabitants to take an interest in female education. The number of girls at present under instruction is 762, and the reports of the different schools are on the whole encouraging. The opening at Akolah of the first normal school for masters ever established in Berar was an important event of the year.

FINANCE.

The entire income of the administration amounted to 862,000 *l.* and the charges to 812,100 *l.*, or, excluding local funds, the sums were 701,300 *l.* and 664,400 *l.* respectively, leaving a surplus of 36,900 *l.* The increase over the receipts of 1868-69, amounting to 56,100 *l.*, was mainly under the heads of abkaree and Land Revenue. The military charges, which form the heaviest item of the expenditure, amounted to 300,000 *l.*, or 18,000 *l.* more than the previous year's charges, the increase being chiefly due to the dearness of provisions and other unavoidable causes of expense.

Cotton.

The cotton crop of the season 1868-69 in Berar was an excellent one, "equal total both in quantity and quality to the produce of any previous year." Out of 1,334,000 bales sent by India to the United Kingdom, 233,000 bales came from this province alone. At the commencement of 1869-70 also the weather was equally promising; the area under cultivation had greatly increased, raising the per-centage of cotton cultivation to the cultivated area from 25 to 30 per cent., and

	Acres.
1869-70 -	1,415,786
1868-69 -	1,286,742
Increase -	129,044

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and in every way the prospects were most hopeful. In September, however, when the ripening crop requires warmth, the heavy rain returned and caused great damage to the plant, which was then in flower; it, moreover, continued until late in March, so that, notwithstanding the good promise with which the year commenced, the exports from Berar were 175,988 bales only, a falling-off of about 24 per cent.

Pressing.

The system of full-pressing has gained ground rapidly, and was much assisted by the presses set up during 1868-69. In the year 1865-66 the whole of the cotton went down in loose bags or dokrahs, while in that under review 66 per cent. of the cotton exported by railway was full-pressed, ready for export; 30 per cent. was half-pressed; and only four per cent. went down in loose bags. The number of full-presses in the provinces is now 20, which is sufficient to press the whole cotton of all the districts. The close packing is an advantage to the railway company as well, for it reduces the quantity of rolling stock required, lessens the risk of fire, and prevents the blocks on the line, which were of constant occurrence. The railway officials are reported to be deserving of special recognition for their endeavours to make the traffic arrangements as convenient as possible.

Model farms.

The improvement of the indigenous plant, by careful cultivation and the selection of seed, is persevered in at the model farms with the most satisfactory results. In the unusually bad season of 1869–70, ordinary fields on the farms produced as much as 176 lbs. of cleaned cotton per acre, and in an exceptional case, where the soil of the field was above the average, as much as 255 lbs. was obtained; while in an ordinary native field the yield was hardly 50 lbs. to the acre. The seeds are selected on the pedigree system; much of the best seed is distributed among the most intelligent landholders of the neighbourhood, and the remainder is reserved for sowing in the model farms. Deep ploughing is found to make the plants much stronger and healthier, and has greatly contributed to the large yield just referred to. The seeds farms are also used as agricultural schools. The sons of some of the principal cultivators are employed on the farm; and the various experiments are explained to them and to the villagers, who occasionally visit the farm to learn the results of our operations, and who express astonishment at the excellent crops of cotton, tobacco, Carolina rice, and other produce raised at the seed gardens.

Communications.

The Khamgaon Railway had already proved of the greatest benefit, and from the date of its opening, the 4th March 1870, to the close of the season, had carried 40,000 bales, or nearly one-fourth of the cotton crop of Berar. When the line to Oomrawuttee, and another to the coalfields of the Wurdah, are constructed, the requirements of the cotton trade will be fully met.

Forests

The appointment of a special Conservator for Berar was carried out during the year, and the Department was divided into two executive charges: the northern charge comprising the forests in the districts of Ellichpur, Oomrawuttee, and Akolah; the southern, those of Buldanah, Bassim, and Woon. The only reserved or State forests at present created are in the Ellichpur district, and cover an area of about 1,500 square miles. In these a more or less rigid system of conservancy is carried out. On the other hand, in the larger area of the unreserved forests, which consist for the most part of coppice, and greatly influence the rainfall and climate of the province, no control is exercised over the cutting of wood by the people. The importance of their preservation and extension is fully recognised, however, and it is hoped that the opening-up of the Wurdah coal mines will before long second the efforts which are being made in this direction, and while supplying the want of fuel for domestic purposes, which is beginning to be felt in several parts of the province, will enable the forest officers to impose stricter rules of conservancy upon the unreserved districts.

Agriculture.

Returns show that 46 per cent. of the area of the province is actually under cultivation; that 29 per cent. more is culturable, and that 25 per cent., of which a portion is let as pasturage, is waste land. The total acreage under cultivation during 1869–70 exceeded that of the previous year by 313,654 acres; but the aggregate yield was 12 per cent. less. Food-grains of various kinds occupy about twice the area on which cotton is cultivated. Prices have risen enormously since the assignment of the province to British management; for instance, cleaned cotton, which was worth 16 *s.* a maund in 1853–54, is now worth 2 *l.* 10 *s.*

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in East Berar, and about 3 *l.* 6 *s.* in West Berar; wheat has risen from 2 *s.* 6 *d.* to 8 *s.*; buffaloes from 4 *l.* to 8 *l.*, and other produce and stock in the same proportion. With respect to the condition of the peasantry, the Commissioner of East Berar writes, "During the year, cleaned cotton fetched about 2 *l.* 10 *s.* the maund of 82 lbs. in Oomrawuttee; therefore the value of the produce of one acre, which I have taken at an average of 50 lbs., would be worth in round numbers about 1 *l.* 10 *s.* Deducting from this one-third, or 10 *s.*, for the expense attending the cultivation, and another third for the clothing and subsistence of the cultivator and his family, there remain 10 *s.*, of which the cultivator pays at the most but 2 *s.* 6 *d.* to the State, and this gives a fair idea of the profits which our ryots are realising. Cotton alone pays the whole of the land revenue demand; so that the produce of 69 acres out of every 100 cultivated is so much clear gain to the ryots. The Berar ryot is probably better off than any agriculturist in the world, and he will continue so as long as our cotton is in demand." BERAR.

Fairs in this province, as generally throughout India, serve the purposes of religion, commerce, and pleasure, and the officers of the Administration, recognising their importance, bestow much care upon their regulation. Four such gatherings were held during the year, at which 409,951 persons are said to have been present. The property brought for sale was valued at 192,754 *l.*, and consisted chiefly of English piece goods, country manufactures, and raw produce, and it is estimated that three-fourths of it were sold. Fairs.

There are six civil hospitals in the province, and 15 dispensaries, at which, in 1869, 12,540 persons were treated, or 165 per cent. more than in 1868. Hospitals.

From important discoveries made during the past year, it appears most probable that the mineral resources of the Assigned Districts are immense. The total area of the coal fields, which lie on both sides of the Wurdah, exceeds 1,000 square miles, of which 560 square miles had been carefully surveyed; and some very valuable beds of iron ore in the neighbourhood have recently been brought to light. This subject will be more fully treated in connection with the geological surveys in another part of this Report. Mineral resources.

The Soubahdars of the Deccan from an early period of our connection with India, from the time when we were rivals with the French for the mastery, have been our consistent allies. The Hyderabad Subsidiary Force had its origin in a treaty entered into by the then Nawab, Nizam Ali, in which he stipulated for the assistance of a subsidiary force when he might require it, and in return ceded five broad and fertile districts. A later treaty, that of 1798, placed the force permanently at the disposal of the Native Government; and the treaty of 1800 provided for an augmentation of the force, and conveyed to us the present districts of Bellary and Cuddapah in consideration of its being kept up. It should be noted that the territory thus transferred was but a recent addition to the Hyderabad State, acquired chiefly through the instrumentality of the British troops. The gross annual revenue of the seceded districts now amounts to 812,500 *l.* Unlike Berar, they are British territory pure and simple, though treaty obligations require us to maintain from their revenues a certain armament. The force is massed in the cantonment of Secunderabad, a healthy station, possessing natural and strategical advantages, and situated about four miles to the north of Hyderabad, and 1,850 feet above the level of the sea. The force is a compact one of 5,170 men, and forms part of the military establishment of Fort St. George. Hyderabad Subsidiary Force.

The Hyderabad Contingent, a force of 8,195 men of all arms, is distributed throughout the State in seven cantonments under the command of British officers. The commandant of each station is the representative of our Government in the district where he is quartered; he can check oppression, report political intrigues, and is invested with limited civil duties. The force is in a high state of efficiency, and its cavalry contains many of those highborn soldiers who have made the Indian irregular cavalry famous. Hyderabad Contingent.

The territory under the sole management of the Nizam's Government has an area of 80,000 square miles. It lies between Berar on the north and the Madras Presidency on the south; on the west is a portion of the Bombay Presidency; on the east, the Central Provinces and the coast districts of the Madras Presidency. The principal rivers are, the Godavery, which, rising near Nassick in THE NIZAM'S TERRITORY.

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the Bombay Presidency, traverses it from north-west to south-east; the Pynegunga and the Wurda, tributaries of the Godavery, which form part of its northern boundary; the Kistna and its tributary, the Toongabudra, which mark the southern boundary. The western half of the province is of trappean formation; the eastern half, granitic. The languages spoken are Mahratta in the north, Telugu and Canarese in the south. The mass of the inhabitants are peaceful, and the two most influential elements of the population are the rural chiefs, who possessing, many of them, fortified places and a certain amount of influence over the people, were once a cause of anxiety to the Government; and the foreign mercenaries, consisting principally of Arabs and Rohillahs, who have fairly domiciled themselves in the country. The Rohillahs are military adventurers, who originally came from beyond the Indus; they are good soldiers, but given to violence and robbery on their own account, and they are undoubtedly enemies to order and established government. They number about 3,000 fighting men. It is difficult to say how many Arabs there may be in Hyderabad, but according to Sir Salar Jung, their whole number does not exceed 8,000 men. They have an aversion to referring their disputes to the regular courts of justice, and prefer settling them by force of arms. Their wealth as a class, however, is a guarantee for their general good behaviour; and, on the whole, they are said to be becoming more orderly. To enable fresh arrivals to proceed to Hyderabad from Arabia, a pass is required at Bombay, which is procured through the Resident, and is generally refused to any who are not merely returning to join their families. Hyderabad, the capital of the Nizam's country, stands on the south bank of the Moosee, which flows between it and the British Residency. Its population is estimated by Sir Salar Jung at 400,000. The change which has come over the country during the present century is marvellous. The public treasury is full; the Hyderabad Contingent has not fired a hostile shot since the suppression of the Mutiny; the police have been placed on a satisfactory footing; the once dangerous mob of the capital is thoroughly under restraint, and it is not too much to say that all this, and more, has been accomplished by Sir Salar Jung, the able Minister of the Nizam, who, in the face of opposition on the part of his Sovereign and the nobles, has persevered in his course of sound political and financial administration, receiving throughout the support of the British Government, and winning their respect and admiration.

The event of the year was the death of his Highness Afzal-ud-Dowlah, who died rather suddenly on the 26th February 1869, after 12 years' reign. To allay popular agitation, no time was lost in proclaiming his only son, a child two years and a half old, as his successor; and within a few hours after the event became known the proclamation was made in the usual manner. The guardianship of the young prince has been entrusted to Sir Salar Jung and another Nawab, and measures have been taken for giving him such a sound and liberal education as will fit him for the important duties of his future life. Sir Salar Jung's latest administrative reforms have been the formation of four separate departments, namely, Judicial, Revenue, Police, and Miscellaneous, which were formerly united under one office. For the period occupied by Sir Salar Jung's tour through India, undertaken during the year, the government of the country was conducted most successfully and harmoniously by the Nawabs Basheer and Mukarram-ud-Dowlah. The reception everywhere given to him by every rank of our countrymen showed him, Mr. Saunders remarks, that such efforts as he had long been making at Hyderabad in the cause of enlightenment and good government are held to confer on their author a more real claim to consideration than the mere accidents of birth or prestige of hereditary power could do.

Revenue. Public Works.

The public revenue of the Hyderabad State during 1869-70 is said to have amounted to 1,256,000 *l.* The trade is estimated at 3¼ millions a year. Measures have been taken for keeping in better repair than has been hitherto the case the very numerous tanks which are scattered throughout the province, and may be numbered by thousands. Roads, moreover, though in a more satisfactory condition than the tanks, are far from what they might be, there being as yet no regularly made first-class road in the common sense of the word. Those in existence are fair during the dry weather, but become almost impassable during the rains. The State railway, for the construction of which surveys have been made,

made, will run, without leaving the State, from Hyderabad to a place called Waddy, on the Great Indian Peninsular Line, about 121 miles distant from Hyderabad. The British Government have undertaken the construction of the line, and its management and working hereafter. The entire credit of this great project, which it is estimated will cost a million sterling, belongs to the Nizam's Government.

Education.

No organised system of State education yet exists, but there are private or indigenous schools to be met with in every part of the country, where education of a fragmentary description is supplied, and of Government schools there are 72 in all, distributed over 55 of the larger towns. The higher classes are said largely to resort to private tuition for their children, and it appears that, as the rank increases, the educational standard somewhat generally diminishes. The old idea of the middle ages, that a gentleman can do very well without education, is said still to have some slight hold on the public mind here. Maternal affection is another obstacle in the way of education. These, however, are evils which time, and the example of one or two enlightened natives of high rank, are even now mitigating every year.

RAJPOOTANA.

The famine of 1868-69.

What immediately follows is but a brief abstract of an extremely interesting report by Colonel Brooke, the Political Agent for Haraoti, of the famine which desolated Rajpootana in 1868-69.

The Aravalli range divides Rajpootana in a line running N.N.E. and S.S.W. Two-fifths of the country lie to the south-east of this line and three-fifths to the north-west of it. The south-west end of the range culminates at Mount Aboo; the main range supports to the east the elevated tableland of Meywar. The only stream of any consequence to the west of it is the Loony river which flows into the Runn of Kutch. It is said that the Aravalli, with the Loony below it, and the Meywar tableland above, sloping gently to the North-West Provinces, bears a miniature resemblance to the Himalayas supporting the tableland of Thibet above with the Punjab and Indus below.

Nearly the whole country to the north-west of the Loony, comprising the western portion of Marwar, the States of Bickaneer, Jeysulmere, and Shekawattee, and covering an area of about 65,000 square miles, or considerably larger than England and Wales, is a vast sandy semi-desert. The rain sinks into the sandy soil and does not flow off the surface, so that a very small rainfall suffices for the crops. When the rainy season commences the sandhills are ploughed by the camels and the seed planted very deep in the ground. The harvest in a good year much more than suffices for the wants of the population, but owing, unfortunately, to the want of storage accommodation, the surplus produce is wasted, being frequently left on the ground to be eaten by the cattle.

The great wealth of the desert lands of Marwar and Bickaneer consists in the vast herds of camels, horned cattle, and sheep, which roam over these sandy wastes and thrive admirably in the dry bracing climate on the rich grass of the desert. Marwar alone, before the famine, had at least two and a quarter millions of horned cattle; single households possess hundreds of them, and some large dealers several thousands, and in such numbers are they bred that the neighbouring provinces are supplied, the produce being yearly sold at great fairs, where the price of a large pair of bullocks ranges from 15 *l.* to 40 *l.*, smaller ones fetching from 4 *l.* to 8 *l.* per pair. Sheep are exported largely to our military stations, and supply the Bombay market. The Bickaneer camel is the swiftest, and the Marwar camel the most enduring in India.

The wealth, therefore, of these provinces is considerable, barren though they appear to be. The partners in the great Marwaree banking firms, who trade and speculate at Calcutta and Bombay, have their homes at the capitals of the Desert States, and enrich the country by the wealth they bring and the charity they bestow. The ryots of the desert have not many wants, and, as their cattle are a great source of profit, they are well-to-do in the world, and accumulate wealth rapidly, which they partly bury and partly display on the persons of their wives.

Rajpootana depends for its rain supply on two sources, the south-west monsoon and the eastern monsoon. The first, striking the coasts of Kattywar and Kutch, expends its force on the high ranges of hills of those countries, passes with lightened clouds to Mount Aboo and the slopes of the Aravalli, and has

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little rain left for Ajmere and Central Rajpootana. The eastern monsoon sweeps up from the Bay of Bengal along the valley of the Ganges, plenteously supplying the eastern, and, if in force, the central districts, but seldom reaching Marwar, Jeysulmere, and Bickaneer to the west. Going from east to west we go from a land enjoying a plentiful and equal rainfall to one with an uncertain one, and finally to one in which hardly any rain falls. The failure of one or the other monsoon produces a local famine over the countries under its influence; the failure of both on rare occasions, and as was the case in 1868, produces what the natives call a treble famine, a famine of grain, grass, and water, the three great necessaries of existence. In the former case grain is obtained from the more favoured districts, and the population find temporary refuge there till the return of the next rainy season. In the latter case they have no such resource; the people wander from place to place till their cattle have perished, their savings are expended, and they themselves either ask for alms, or in the case of the mass of the proud Jât cultivators lay themselves down to die, for they will neither take by force, it is recorded of them, what does not belong to them, nor will they, as they consider, lower themselves by taking wages for labour. They regard themselves as servants of the soil, and from the produce of the soil alone will they deign to live.

There are many records of the famines that have visited the country; but the first famine, which on account of its intensity has reached us in writing and not by tradition, occurred in 1661. Its memory is preserved in Meywar in a beautiful marble bund erected by the chief of the day, Raj Singh of Oodeypore, for the sake of his people, at a cost of a million sterling. It is thrown across the course of a stream which forces its way through a range of hills, and is described as a fairy-like structure richly ornamented. These great famines apparently occur every 40 or 50 years, but until that of 1868 none equal to it in severity had occurred since the terrible one of 1812-13 which is said to have lasted five years, and when, as in 1661, man ate man, when three-fourths of the cattle died, large tracts of country became utterly depopulated, and skeletons were lying in every direction.

The famine of 1868 commenced with the failure of the rains in June. So severe and widespread was the drought that followed, that not only was it found impossible to cultivate the land, but, from want of sustenance, the pack bullocks, on whose loads of foreign grain the country so much depends for an adequate supply of food even in ordinary times, died in large numbers, and thus importation was brought to a standstill. Within an area of 100,000 square miles, or five-sixths of the whole country, the suffering was very great; in parts of the Native States and throughout British territory, it was intense. It is estimated that from Marwar alone, 1,000,000 persons, or two-thirds of the entire population emigrated, taking with them more than 2,000,000 head of cattle. In the whole tract affected by famine, it is computed that 1,250,000 human beings died from starvation or disease.

To mitigate the fearful suffering everything was done that the energy of our officers could accomplish. Instant measures were taken to afford relief, both in British and Native territory; the Native Governments were induced to abandon transit duties on grain, and a large amount of grain was obtained from Sindh and the North-West Provinces. In the British districts of Ajmere and Mhairwarra, where the distress was most severe, the officers were unwearied in their efforts; and at the various cantonments in Rajpootana, aided by the missionaries and the non-official community generally, they readily devoted much time and money in the relief of the poor.

The sum total spent by the Government on the relief of the population of its own territory, numbering 426,000 souls, was 152,000 *l.*, a sum nearly equal to three years' gross revenue derived from the districts afflicted. Great praise is bestowed on several of the Native States of Rajpootana, on the chiefs of Jeypore and Oodeypore, who each distributed about 50,000 *l.* in relief, on the chief of of Jhallawar, and on the Thakoors of Marwar and the merchants of Bombay, who contributed largely for the support of the suffering.

The 18 principalities of Rajpootana are supervised by the Governor General's agent, with a staff of political agents and assistants, amounting in all to 20 officers. Their united salaries and the other purely executive charges of the agency amount to nearly 37,000 *l.* The chiefs exercise supreme, civil, and criminal jurisdiction within the limits of their respective States. They are restrained by no check save the moral influence and fear of the British Government. Disputes among themselves are adjudicated by the courts of Vakeels, consisting of

of one upper court and four lower courts, at which, when British interests are concerned, or at the request of the members, or in cases of importance, the agent of the Governor General or one of his subordinate officers takes his seat as president, and has a casting vote.

It seems well to preface the review of the events of the year in Rajpootana with some remarks made by the Governor General's Agent, Colonel Keatinge, which, taken in connection with the recent discussion on the case of the Nawab of Tonk, are of special interest. Recording his high opinion of the gentlemen who form the staff of the Rajpootana Political Department, Colonel Keatinge says, "There may have been a period when the officers accredited to native courts enjoyed the blessing of considerable leisure, but now any political agent who really desires to perform his duty has his time most amply occupied. Almost every paper that comes before him requires special consideration, and he must be continuously on the watch against the systematic misrepresentation and intrigue to which he is subjected. It is only in the Political Department that a judge is forced in the performance of his duty to associate on terms of intimacy with the very persons who are parties to suits in his court. The value of the questions which come to political agents for arbitration is enormous, compared even with the civil litigation of the Presidency courts. There are few of these cases in which some leading member of the Durbar is not deeply interested, and he alone is a fit representative of the department who can meet such men with cordiality almost daily in the performance of duty and in the ceremonies of a native court, and at the same time keep his mind unbiassed regarding the issue before him. Self-reliance, a high-toned morality and a judicial mind are then the qualifications which, above all others, are required in a political agent; before them all linguistic or departmental accomplishments are insignificant. Where the qualifications I have enumerated are wanting, the fact is soon apparent in the acrimonious appeals and accusations which inundate Government and the head of the local department. The absence of such appeals and the tone of the decisions I have reviewed during my three years' tenure of office force upon me the conviction that Government is well served by its officers in Rajpootana generally, and I commend to its notice with confidence a body of gentlemen with whom I shall always count it a high honour to have been associated."

Oodeypore.

To encourage the young Maharana of Oodeypore to rule in the spirit of enlightenment desired by the British Government, he was induced by Colonel Nixon to write a narrative of the year's proceedings which appears in the Appendix to Colonel Nixon's Report. Large remissions of land revenue, the remission of the grain duties, and the generous assistance given to the sufferers from the famine, reduced the receipts and considerably increased the expenditure of this State; so that, contrary to the results of former years, there was a deficit instead of a surplus. In compliance with the wishes of the British Government the Maharana has established regular criminal and civil courts, the whole of the civil and criminal jurisdiction having been hitherto in the hands of the Prime Minister. The adoption of a code of judicial law meets with great opposition on the part of the petty Sirdars, on the plea that the Hindoo Dhurm Shasters should be the sole guide to all criminal law. The true reason of their opposition is that they desire to retain irresponsible jurisdiction in their own hands, and dislike the idea of their lawless proceedings being subjected to a proper criminal supervision. The Maharana is contemplating the introduction of a systematic revenue settlement of his territories. The measure is regarded as an innovation, but it will be a great gain to the Durbar, enabling them to regulate the revenue demands upon the agricultural classes and prevent undue exactions. The approaching completion of a new road southwards from Oodeypore, in the construction of which the chief himself takes great interest, will soon enable Meywar to contribute its cotton to the Bombay market. Meywar did not suffer from the scarcity so much as other parts of Rajpootana, but the loss of life would have been far greater had not the granaries at the capital been fully stocked in anticipation of such a calamity.

	£.
Receipts	237,793
Expenditure	261,597

While fully alive to the fact that the administration of affairs generally in Jeypore is far in advance of that existing in almost any Native State in India,

RAJPOOTANA.

Jeypore.

Captain Bradford, the Political Agent, is compelled to confess that the recently established Council has not fulfilled all the hopes that were entertained of it. He fears that the tendency of its operations is less to induce in executive officers individual energy than to relieve them of the responsibility involved in their position. In this opinion he was confirmed by the agreement of several persons of influence in the State with whom he had conversed, but he yet trusted that as the Council became aware of its weakness, it might be incited to additional efforts in support of the laudable desire towards advancement evinced by the Maharajah. To adopt measures for the relief of the famine which was severely felt in this State, a public meeting was held, at which the Maharajah was present and promised to double any amount that might be raised by private subscription. A committee was formed, consisting of a British officer and two of the chief officers of the State, under whose direction the able-bodied were employed on public works, while the sick and weakly were relieved gratuitously.

It is most gratifying to learn that the Maharajah's policy towards the Thakoors in the district of Shekawattee has produced a great change in the condition of this hitherto troublesome part of the country. Several influential chiefs in visiting the capital expressed themselves to Captain Bradford, agreeably surprised at the kind interest in them shown by His Highness, and his evident anxiety to retain them in undisturbed possession of their estates. Good reports are received of the progress of the Maharajah's college at Jeypore, and of his school for the education of the sons of Thakoors; nor should we omit to mention the Jeypore Schools of Arts, of which Captain Bradford feels confident that, under the able management of Dr. de Fabeck, it will soon occupy a very prominent position in India.

	£.
Exports -	265,000
Imports -	577,500

The trade of the Jeypore territory for the year 1869–70, was of the value of 842,500 *l.*, exclusive of salt. Jeypore supplies nearly the whole of Rajpootana with gold, silver, and precious stones; but two years of scarcity have greatly diminished the trade in these articles. There are seven banking firms in this State doing an aggregate business of about 2½ millions sterling and possessing a capital of upwards of six millions.

Marwar.

"This formerly rich country is now poverty-stricken. Its herds are gone. The vast plains where the cattle used to graze are deserted: the grass is untrodden and uncut; animal life appears to have been temporarily extinguished; a bird is rarely seen or heard. The countless herds of antelopes have disappeared; dogs, foxes, and jackals are dead. Even the field rats have been starved out, and insect life has notably diminished. The stillness of death is felt everywhere." Such was the condition of Marwar in May 1870. Altogether the account given of this State is not cheering. The revenues which are estimated to amount usually to about 320,000 *l.*, fell one-third during the two years of famine. No account can be given of the expenditure, which should not exceed, say 220,000 *l.*; but there is so much misappropriation, so much peculation and fraud, that a difficulty about the ways and means invariably arises long before the year has expired. In the Government there is the same disregard to whatever is passing beyond its own narrow sphere; there is neither justice for the people nor protection to property; the Court is corrupt, and a good Minister's efforts are thwarted by the influence of the favourites of the Zenana. The last Minister appointed was a foreigner who promised implicit obedience to the Maharaja. Unable to carry his measures, through the opposition of the old servants of the State, he imported a number of his own countrymen from the north-west to displace them. Depending solely upon his popularity with his master "he is afraid to bring to his notice questions which involve expenditure; these are kept in the background, and the most necessary and pressing measures for the government of the country, such as the Minister is anxious to carry out, are indefinitely postponed; for as soon as the Minister calls upon the Maharaja for money, from that minute he will fall into disgrace. The time is passed in pleasures and shows, and day succeeds day of the same resultless trifling. Whatever revenue comes in is appropriated either by the Minister, who is extravagant, for his own expenses, or by the Maharaja to add to his hoard. The current expenses of this State are unheard for and in arrears. The troops, establishments, and workpeople are all calling out for pay and will eventually make themselves heard."

The

RAJPOOTANA.

The Maharaja is always willing to receive the suggestions of Colonel Brooke, but the weakness of his nature, coupled with the influence of those who surround him, prevents his always acting on them.

Haraoti agency.

The Political Agent for Haraoti has the political supervision of the States of Boondee, Kotah, Jhallawar, Tonk, and Shahpoora. In all of them the famine was felt terribly, and was followed by cholera and the destruction of the crops by locusts. "The cultivator, always more or less in debt, is now irretrievably so; his cattle, his household, all are gone; and as with the individual, so with the State." A good word is said for the grain merchants:—"Everywhere throughout the country the famine called forth more or less conspicuously the open-handed charity of the Mahajun classes. Both jointly as co-operatives, and privately as individuals, they distributed grain, food, and clothing; and at more than one place, *in order that succour might reach those ashamed to accept relief publicly, they sent round supplies after dark with a bell.*"

There is so much that is interesting in the materials from which these allusions to "Rajpootana in 1869-70" have been taken, that one cannot but regret that the limits of the "Moral and Material Progress Report" require severe curtailment of the original, and that it has only been possible to select for notice a few of the more important States. The testimony of Captain Muir to the worth of the late Captain Blair, an officer who appreciated the responsibilities of his position as a political officer, and acted up to them, seems a fitting conclusion to this chapter. "Deputed to Tonk on the deposition of the ex-Nawab, he was called upon to support and direct a temporary Administration beset with difficulties of no ordinary kind. The successful manner in which he not only performed this duty, but without extraneous aid re-organised almost the entire economy of the State, are well known. Shunning aught like the assumption of power or authority, the reforms he accomplished were effected through the agency of the people themselves, and, as such, promise to be lasting and permanent. The secret of his success lay in his warm sympathy for all with whom he was brought in contact, a sympathy which had the effect of drawing all to him. It was this which secured for him that measure of confidence which enabled him to do so much good, and which often brought Thakoors and people of distant States to seek his advice. His death was mourned as a national calamity."

MYSORE.

MYSORE.

THE territory of Mysore consists of a table land of considerable elevation. It measures 190 miles from north to south, and 230 miles from east to west; and its area of 27,004 square miles is about that of Bavaria. It is enclosed by the Madras Presidency on every side but the north-west, where its boundary is conterminous with the southern extremity of the Bombay Presidency. Its principal rivers, the Toongabudra, the Hugri, and the Cauvery, have their sources close together; but while the first two flow north-east, and eventually join the Kistna, the third flows in a contrary direction, south-east, past Seringapatam, and before reaching the Coromandel Coast takes the name of the Coleroon.

The Principality was taken under British protection in 1834, in consequence of the misrule that prevailed under the late Maharajah, and will so continue during the minority of his adopted son and successor. The chief authority in the province is the Commissioner, who corresponds directly with the Governor General in Council, The administrative divisions of the province are Nandidroog, Ashtagram, and Nagar, the little State of Coorg also forming part of the Commissioner's charge, and these are subdivided into eight districts. To fit him for the future duties and responsibilities of his position, the young Maharajah is being carefully educated under the care of Colonel Malleson.

Criminal Justice.—The number of criminal courts of all kinds in the province are 120, that of the Judicial Commissaries being the highest, and exercising the powers of a High Court.

MYSORE.

Judicial.

The increase of 815 in the number of criminal cases was chiefly in the petty offences. Of the total number of persons tried, two-thirds were acquitted and one-third convicted. This curious proportion is apparently due to the belief that a person may be taken up on any complaint, whether *primâ facie* ascertained to be well founded or not, a belief that requires and is receiving correction on the part of the magistrates. The list of convictions for murder was swelled by an exceptional increase in the Nagar division, the cause of which cannot be explained.

	1868.	1869.
Number of Cases -	3,529	14,344
Persons tried -	28,739	31,521

Civil Justice.—Several important changes were introduced in 1869 in the constitution and powers of the various civil courts in order to remedy the incompetence of the courts of first instance, the multiplicity of appeals, and the conflicting duties of the executive officers sitting as judges, which prevailed under the old system.

The number of suits instituted in all the civil courts was 14,702, showing an increase of 2,133. Nearly 98 per cent. of all the litigation is carried on in the courts of the lowest grades. The appeals continue to diminish in number.

Police.

The number of police employed throughout the province was 24,959, and their cost nearly 68,000 *l.* The organization of the force is admitted to need revision.

Gaols.

There is one central gaol at Bangalore, besides seven district gaols and eight lock-ups; the daily average of prisoners confined in them was 1,795. The year was marked by a considerable decrease in the number of convicts, accompanied by a reduction of expense, two results that are mainly due to a return to plentiful seasons after seasons of scarcity. The gross cost of the maintenance and guarding of all the convicts was 14,476 *l.*, or about 8 *l.* 1 *s.* 7 *d.* per man; the death-rate (1·8 per cent.) contrasted favourably with former years. The report of the superintendent of the central gaol is interesting. Great care seems to be exercised in the employment of the men under his charge, whose daily average strength is 900; and he speaks decidedly of the civilising influence of their employment and the habits of industry acquired by them while in gaol. With regard to education in this gaol, the men appear thoroughly to appreciate the efforts made for their instruction, and during the hour of study it is said to be rare to see a man in any of the classes whose attention appears to be wandering.

Revenue.

The total demand for Land Revenue, including an outstanding balance of 35,860 *l.* from 1868-69, was 1,118,853 *l.*, of which 952,715 *l.* was collected within the financial year. The payment of the remainder was postponed to a later period, in order to enable the agricultural population to meet their engagements by the sale of the produce of their lands, without being compelled to resort to money-lenders. It was found that by demanding the rents before the crops could be brought into the market, the ryots had often to borrow money to pay them, and henceforth the months of collection will be from January to May, instead of from November to March, as before. Allowing for these exceptional circumstances, there was, nevertheless, a slight real decrease in the receipts for the year, owing chiefly to a large relinquishment of lands, to remissions on the mulberry gardens, consequent on the failure of the silkworms, and on the coffee plantations, owing to the losses caused by the "borer" insect. The total number of coffee estates was 21,845, comprising an area of 100,992 acres, nearly the whole of which was held by Europeans. The quantity of coffee exported during the year was 3,349 tons, while in the year previous it amounted to 5,220 tons. The excise duty on the product is 6 *d.* per maund.

Coffee.

Various items of revenue.

The number of looms at work in the province increased from 38,921 to 40,872; their taxation yielded 7,400 *l.* Oil-mills, of which there were 3,490, also brought in a small revenue of 1,465 *l.* The revenue derived from opium was minute, amounting to no more than 50 *l.* The local funds realised 16,498 *l.*, of which 8,689 *l.* was derived from the plough tax, and nearly 4,000 *l.* from a small cess in the surveyed talooks. The municipalities raised 18,548 *l.*, nearly one-half of which was contributed by the octroi duty on tobacco, piece goods, &c., and about 5,000 *l.* by a mohaturfa tax on the owners of houses, shops, &c.

Education

MYSORE.

Education shows a satisfactory degree of progress, a result which is evidently due to the exertions and active interest of the officers of the Educational Department. The scheme for the establishment of the hóbli schools, which was introduced in 1868-69 and was noticed in last year's Report, succeeds admirably; in some places upwards of 70 pupils attend; the schoolhouses have all been built or purchased by the people, while in some cases the schools have been built at the expense of a single individual. It should be explained that a hóbli signifies a subdivision of a talook, and comprises several villages. Their number throughout the province is 645, each with an average area of 41 square miles and a population of 6,040 persons. There is every reason to hope that the establishment of this class of schools; the success which is attending the Maharaja's school, where the young prince and the sons of many of the chiefs of Mysore are under the charge of Colonel Malleson; the improvement in the attainments of the native teachers, which is being effected by the hóbli normal schools; and the support given to female education, will all rapidly promote the extension of education amongst the rural population, the great need for which had long been felt. At present the number of scholars connected in any way with Government supervision bears the small proportion of four per thousand of the population, and about 200,000 boys of an age to attend school are left without instruction of any sort. It is worthy of note, that of the 17,137 scholars more than 2,000 are girls, and that the schools in which they are being taught all originated with the people themselves. It is justly considered that time will strengthen the desire of the people for the extension of female education, and that it would be unwise to press forward the formation of schools of this class. The cause of education received a stimulus from the fact of several natives having attained high positions by means of the good education they received in the schools of Mysore, and a large number of candidates now present themselves at the examinations for the uncovenanted service, with the view to possess a certificate of their attainments. It is fully recognised that, desirable as the extension of the study of English may be, the masses of the people must be reached through the medium of their own language, and that vernacular education must not be neglected.

Education.

Public works.

The grant for public works was reduced to 170,000 *l.* and was exceeded in the expenditure by 3,452 *l.* The largest sum (67,460 *l.*) was spent on communications; 30,000 *l.* went to irrigation works, of which more than two-thirds was spent in the repair of tanks, which are very numerous throughout Mysore; on civil buildings was spent 18,670 *l.* There is little calling for remark in the year's proceedings. The aggregate length of roads in charge of the Public Works Department was 2,365 miles, besides which there are numerous district roads throughout the province, which are under the control of the district officers, and are maintained from local funds. Attention has been drawn to the large sum of money spent annually on the repairs of tanks, and it is in contemplation that these shall be carried out in future by the Revenue officers instead of by the Public Works Department, and that the tanks, when complete, shall be handed over to the ryots for management and maintenance, subject to certain conditions.

Municipal.

The province possesses municipalities in many towns, of which those of Bangalore, Mysore, Hassan, and Shimoga deserve special notice. In all four a good system of drainage, either has been, or is being carried out; the roads and streets are maintained in capital repair and many useful improvements have been accomplished.

Finance.

The provincial revenues, it will be seen, were less during the year than in 1868-69 by about 162,000 *l.* A deficiency of almost exactly this sum was due to the postponement merely of the payment of a portion of the land revenue for reasons already explained, and this would, of course, be made up in the year 1870-71. The variation under the other heads of receipt counterbalanced each other; the aggregate increase under "sáyer," "abkari," and stamps being about equal in amount to the aggregate decrease under "forests," "assessed taxes," and "law and justice." Sáyer is an excise duty levied on tobacco, betel leaves, cocoa-nuts, opium produced in the province, and on piece goods manufactured in it; it produced

	1868-69.	1869-70.
	£.	£.
Revenue - -	1,087,827	925,770

MYSORE.

duced 75,606 *l.*, or 3,700 *l.* more than in 1869-70. The outstanding balance under assessed taxes (levied on houses, shops, looms, and oil-mills), was, like that under land revenue, realised in the early part of 1870-71. The increase in the expenditure was largely due to the commutation of palace pensions, which were not provided for in the budget. Had the revenue of the year been realised within the year, as anticipated in the budget, there would have been a surplus of 7,160 *l.* instead of a deficiency of nearly 150,000 *l.*

	1868-69.	1869-70.
	£.	£,
Expenditure -	1,041,294	1,075,274

Forests. There are 24 State Forests in Mysore covering an area of about 370 miles. Large quantities of sandal wood are exported to Bombay, where it is much used in manufactures. The Mysore quality of this wood is said to be better than that of Central India, and is certainly more in request. The profit on the year's transactions (20,000 *l.*), though not so large as in previous years, was considerable.

Population. The population of the province was 4,056,766, showing an increase of 50, 46 or 1·25. The proportion was lowest in the Nagar division, where it was 101, and highest in Ashtagram, where it was 185 to the square mile.

Agriculture. The season was unfavourable in the Nagar division; on the whole, favourable in Nandidroog and Ashtagram. Of the total estimated area, it is estimated that $\frac{5}{16}$ths are cultivated land and pasture, that $\frac{1}{16}$th is culturable, and $\frac{1}{16}$th unculturable waste, and that $\frac{9}{16}$ths consist of mountains, roads, and rivers.

There was a large increase in the area cultivated with food-grains and rice. The coffee crop was small, owing to the "borer," but it is hoped that this destructive insect is disappearing from the estates in Mysore. The produce for the year was reckoned at 267,911 maunds against 417,623 in 1868-69. The manufacture of silk, which affords occupation to a large number of the Mahomedan population of the Bangalore and Mysore districts, has been most seriously affected by the disease amongst the silkworms, which has of late years been prevalent in other parts of India. It is hoped that the eggs that have been procured from Japan will succeed in the country; but it appears that the raw silk produced by the foreign silkworm is unsuited to native looms, and the possibility of the silk manufacture becoming, in consequence, the monopoly of an enterprising foreign firm, has occasioned a feeling of alarm amongst those interested in this industry. Mulberry trees were grown on 11,854 acres in 1869-70, a smaller area than in the previous year.

	1868-69.	1869-70.
	Acres.	*Acres.*
Food Grains -	2,198,476	3,021,956
Rice - - -	389,692	1,333,681
Coffee - -	108,741	110,931
Oil Seeds - -	77,388	118,030
Cotton - -	31,605	51,574

The planting of avenue trees along the roads proceeds rapidly. The native community appear to have a growing interest in the exhibitions of fruits, flowers, cattle, sheep, &c. &c., two of which were held during the year and were very successful. Never were there so many competitors for the prizes offered for fine cows, bullocks, country-bred horses, sheep, and poultry. The fruit and vegetables were excellent.

Trade. The value of exports for the year is estimated at 1,211,660 *l.* There appears to have been a decrease in the export of areca-nut, coffee, paddy (rice in husk), rice, tobacco, betel leaves, and hides; whilst piece goods and coarse cloths, which are chiefly manufactured in the Nandidroog division, show a considerable increase, as do silk, rágí, tamarinds, and fresh cocoa-nuts. The imports were valued at 2,368,353 *l.*, or nearly 100,000 *l.* in excess of the year preceding. There was a large decrease in piece goods, salt (sea), and potatoes; in chillies, cocoa-nuts (dry), cotton thread, grain, indigo, pepper, tobacco, turmeric, and silk cloths, there was also a falling-off. On the other hand, there was a considerable increase in the importations of cotton, earth-salt, and betel-leaves; to a lesser extent in iron, rice, and sugar.

Coorg.

Coorg.

The little province of Coorg lies in the south-west corner of Mysore, with its western boundary resting on, and including a portion of, the Ghâts, from the lofty summits of which the sea is often visible. It has an area of 2,400 square miles, of which 547 square miles are cultivated, and 1,705 more are culturable. The inhabitants are a hardy race of people, numbering about 120,000, or 49 per square mile. The aspect of the country is that of an unbroken forest, except where the axe of the planter has effected clearings. The province is divided for administrative purposes into six talooks and two townships. The gross revenue of the year was 58,237 *l.*, and the gross expenditure 59,415 *l.* Coorg is important in a military point of view. Its Raja defended his domains against Tippoo Sultan with great bravery. Its annexation took place in 1834, during Lord Bentinck's reign, after the greatest provocation on the part of the then reigning Raja. Mercara is the capital.

Judicial.

Until 1868, justice was administered by a court called the Duryaft Cutcherry, a time-honoured institution, which was guided less by law than by local prejudices. Act XXV. of 1868 did what had become absolutely necessary; it settled and defined the jurisdiction of the various civil and criminal officers in Coorg, and by its simplicity and comprehensiveness it has proved itself in the two years of its working exactly suited to the requirements of a country where the technicalities of our English law would be out of place. The criminal returns do not call for special remark. The number of offences reported was 929, and the number of persons implicated was 1,580, of whom 706 only were convicted. Civil litigation was characterised by a decrease in the number of suits, coupled with a considerable increase in their average value. The number of suits disposed of was 1,068, of which 92 per cent. were decided in the courts of the lowest grades. The average daily number of prisoners in gaol was 71. The total expenditure was 850 *l.*

Revenue.

The receipts under the several heads of Land Revenue amounted to 42,700 *l.*, or about 500 *l.* more than in 1868–69. The year's harvest was good, and it was anticipated that, if that of 1870–71 fulfilled its promise, the ryots would fully recover the effects of the three bad seasons they lately passed through. The area of land under coffee cultivation was 79,328 acres, which represents a falling-off of 5,222 acres, due almost entirely to the ravages of the "borer" insect, by which some of the finest plantations have been ruined. From the same cause principally, there is a large outstanding balance against the coffee planters, whose losses have been considerable, and who strongly urge that some reduction should be made in the present rates of assessment on coffee lands. In 1867–68 the quantity of coffee exported from Coorg was 3,100 tons, valued at 186,000 *l.*; the bulk of it is shipped for England at the port of Mangalore. Next to coffee, rice is the most important product, 76,549 acres having been devoted to its cultivation in the year under review.

Education.

The state of education is said to be encouraging. The number of children under instruction is in the proportion of 1 in 90 of the population, a much higher proportion than prevails in other parts of India.

Post Office.

In his review of the operations of the Post Office of India, for the year 1869-70, Mr. Monteath, the Director General, first notices the changes which took place affecting correspondence with foreign countries. The scale of postage chargeable on packets of books and patterns exchanged with England was reduced; the special privileges formerly allowed to officers of the army in India were withdrawn from the 1st January 1870; and the route by Brindisi, which effects a saving of about two days in transit, was adopted experimentally. A like reduction took place in the rate of postage to Constantinople, the United States, Canada, and other places; and a new fortnightly service between Calcutta, Port Blair, and Camorta was organised. The various other local steam services which were detailed last year remained the same.

Coorg.

Noticing next the changes in the inland postal arrangements:—On the 1st April 1869, the limits of weight allowed for inland letters were doubled, a change which was much needed, and has proved less expensive than was anticipated The completion of the through railway communication between Bombay and Calcutta necessitated the introduction of a more rapid system of posting. Post-offices and letter-boxes to the number of 262 and 515 respectively, were opened during the year. The total extent of postal lines at the close of the year was 50,877¾, showing an increase of 200 miles under the head of Railways (which have a total length of 4,433¾), not including the extension of the Great Indian Peninsular to Jubbulpore, which took place just after the close of the year. The extension of the river steamer line between Rangoon and Thyetmyo to Mandalay accounts for 300 miles, under the head of "Runners and Boats" (35,498 miles).

Correspondence.

In the year before the introduction of the Post Office Act of 1854, the number of letters and newspapers received for delivery was 19,082,676 only. The returns of correspondence of every kind for the year under review give the total of 84,534,578, to which letters alone contributed 76,867,918. The net increase was 11·24; the increase under letters, 11·57 per cent., was even higher than that of 1868-69. The gross value of stamps sold (282,900 *l.*) decreased very slightly.

District post.

The District Post consists of lines of communication connecting the head quarters of each district with the interior police and revenue stations, and is maintained primarily for the purpose of conveying official correspondence. Its cost is met in some places by a special cess, in others by the general revenues. The good results which have followed the transfer of the district post from the Local to the Imperial Postal Department in Bombay and the North Western Provinces, make it probable that the same measure will be soon carried out throughout the rest of British India. The number of highway robberies of mails (31) was smaller than in 1868-69. The number of persons permanently employed in the Department (24,819) was increased by 1,562.

Mr. Monteath considers the financial results of the year to have been very satisfactory. The receipts, including official postage, and service stamps, were 711,698 *l.*; the disbursements were 649,934 *l.* The receipts were more than in 1868-69 by 3,906 *l.*; the expenditure was greater by 72,380 *l.*; but the Director General confidently expresses the hope that the current year would form an exception to the long list of years in which the expenditure of the Department had increased, and would show instead a very considerable decrease.

The Lower Provinces.

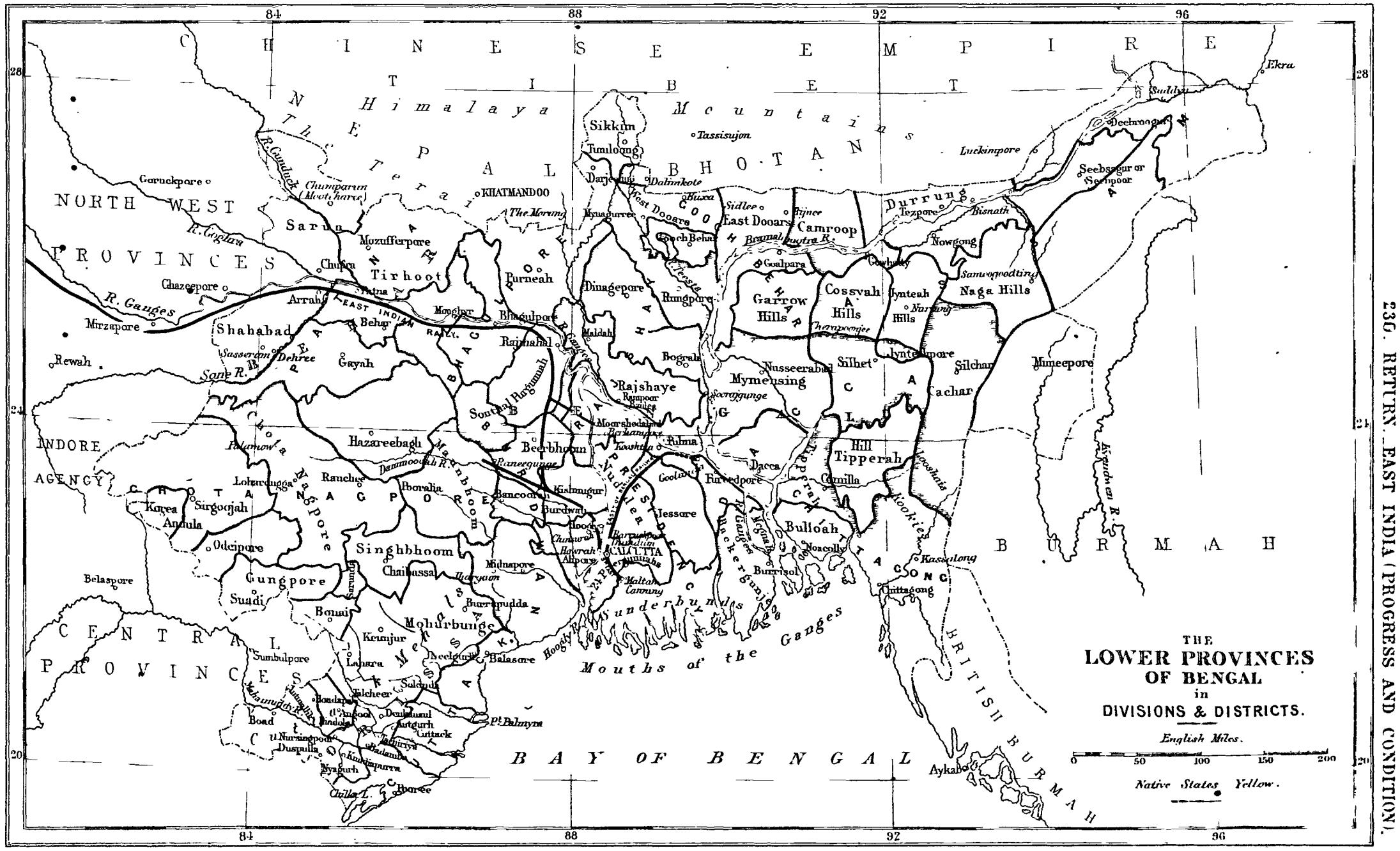
The Lower Provinces.

The territory included in the Government of the Lower Provinces is the largest, the most populous, and the richest of the eight divisions which make up British India. It has an area of 240,000 square miles, about equal to that of France; its population numbers 40 millions, and its revenue amounted in 1869-70 to 15,770,000 *l.*, from which, after deducting the provincial charges against income, there remained a surplus of about nine millions sterling to be added to the smaller contributions of the other provinces, the united surplus forming the fund out of which is discharged the Imperial as distinguished from the provincial expenditure of India.

The province may be said to have three natural divisions—the basin of the Ganges, the basin of the Brahmapootra, and the Chota Nagpore country. Leaving out Chota Nagpore, there is no country in the world watered by so large a number of important rivers, and scarcely any more fertile, the greater part of the province being one vast level of rich alluvial soil intersected by rivers and watercourses.

The North West Provinces were separated from the Presidency of Bengal in 1833, and the province has been circumscribed within its present limits since 1861. It is administered by a Lieutenant Governor, and it possesses, like Bombay and Madras, a Legislative Council.

The


84
88
92
96
28
24
20
CHINESE EMPIRE
TIBET
Himalaya Mountains
NEPAL
BHOTAN
Sikkim
Tumloong
Tassisujon
Dalimkote
Buxa
Sidlee
Bijnee
Luckimpore
Seebsagur or Seebpoor
Ekra
Suddya
Deebroogurh
Durrung
Tezpore
Bisnath
Nowgong
Samuggooding
Naga Hills
Jynteah Hills
Cossyah Hills
Garrow Hills
Camroop
East Dooars
West Dooars
Goalpara
Bramahkoontra R.
Teesta R.
Rungpore
Dinagepore
Purneah
Koch Behar
Nuggurree
Jynteapore
Silhet
Silchar
Cachar
Mymensing
Nusseerabad
Rajshaye
Bograh
Maldah
Rampoor Beauleah
Sooraigunge
Moorshedabad
Berhampore
Kishnagur
Jessore
Burdwan
Hooghly
Midnapore
Hidgellee
Calcutta
Howrah
Chinsurah
Barrackpore
Dacca
Furreedpore
Camilla
Hill Tipperah
Jooaheea
Bulloah
Noacolly
Backergunge
Burrisol
Chittagong
Kasealong
Aykaboo
BURMAH
BRITISH BURMAH
Sunderbunds
Mouths of the Ganges
BAY OF BENGAL
Pt. Palmyra
Balasore
Cuttack
Pooree
Chilka L.
Ganjam
Berhampore
Russelkonda
Aska
Vizianagram
Vizagapatam
Rajahmundry
Ellore
Masulipatam
Guntoor
Nellore
Pulicat L.
Madras
Arcot
Chittoor
Cuddapah
Bellary
Kurnool
Nundyal
Gandicotta
Adoni
Gooty
Anantapoor
Sera
Chittledroog
Hurryhur
Harpanhully
Bednore
Mangalore
Seringapatam
Bangalore
Hosur
Salem
Coimbatore
Dindigul
Madura
Tinnevelly
Palamcottah
Cape Comorin
Ramnad
Tanjore
Trichinopoly
Combaconum
Negapatam
Karical
Pondicherry
Cuddalore
Porto Novo
Tranquebar
Palamow
Lohardugga
Ranchee
Hazareebagh
Boralia
Dammooda R.
Manbhoom
Singhbhoom
Chaibassa
Kolhan
Gungpore
Suudi
Bonai
Keonjur
Mohurbunge
Sumbulpore
Lahara
Deelgurh
Sulepur
Talcheer
Boad
Dusphulla
Nursingpore
Kundapurra
Nyagurh
Odeipore
Kanea
Angula
Surgoojah
Belaspore
Jushpore
Sirgooja
Korea
Chuprah
Tirhoot
Muzuffurpore
Chumparun (Moothiharee)
Goruckpore
Saruu
Chazeepore
Arrah
Behar
Moogher
Bhaugulpore
Rajmahal
Mirzapore
Shahabad
Sasseram
Dehree
Gaynh
Rewah
Sone R.
Nerbudda R.
Indore
Agency
Malwa
Nagpore
Berar
Chota
Ganges R.
Goggra R.
Gunduck R.
Kosi R.
Damooda R.
Subunreka R.
Brahmini R.
Mahanuddy R.
Godavery R.
Kistna R.
Pennar R.
Palar R.
Cauvery R.
Vellar R.
Tambrapurny R.
Vaigay R.
Pamban Pass
Palk's Passage
Gulf of Manaar
Ceylon
Columbo
Point de Galle
Trincomalee
Jaffnapatam
Aripo
Manaar
Adam's Bridge
Ramisseram I.
Jaffna I.
Delft I.
Kayts
Caradive I.
Minicoy I.
Laccadive Is.
Amindivi Is.
Malabar
Canara
Coorg
Travancore
Cochin
Wynaad
Nilgherry Hills
Neilgherry
Ootacamund
Coonoor
Kotagherry
Kundahs
Dodabetta
Paulghaut
Coimbatore
Dindigul
Madura
Tinnevelly
Palamcottah
Cape Comorin
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Tanjore
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Suudi
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Keonjur
Mohurbunge
Sumbulpore
Lahara
Deelgurh
Sulepur
Talcheer
Boad
Dusphulla
Nursingpore
Kundapurra
Nyagurh
Odeipore
Kanea
Angula
Surgoojah
Belaspore
Jushpore
Sirgooja
Korea
Chuprah
Tirhoot
Muzuffurpore
Chumparun (Moothiharee)
Goruckpore
Saruu
Chazeepore
Arrah
Behar
Moogher
Bhaugulpore
Rajmahal
Mirzapore
Shahabad
Sasseram
Dehree
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Minicoy I.
Laccadive Is.
Amindivi Is.
Malabar
Canara
Coorg
Travancore
Cochin
Wynaad
Nilgherry Hills
Neilgherry
Ootacamund
Coonoor
Kotagherry
Kundahs
Dodabetta
Paulghaut
NORTH WEST PROVINCES
CENTRAL PROVINCES
THE
LOWER PROVINCES
OF BENGAL
in
DIVISIONS & DISTRICTS.
English Miles.
0 50 100 150 200
Native States Yellow.

The Lower Provinces.

The province contains eight regulation divisions, which are named generally after the chief town where the governing staff has its head quarters. These eight divisions or commissionerships are each under a commissioner, and they are subdivided into 36 districts, each of which is under an officer styled magistrate and collector. The non-regulation districts, 19 in number, are severally under the management of a deputy commissioner; they are grouped in three divisions which form separate commissionerships. The total number of sub-divisions is 98; 76 in the regulation and 22 in the non-regulation provinces.

Regulation.	Non-Regulation.
Bhaugulpore Division	Assam Division
Patna ,,	Cooch Behar ,,
Rajshaye ,,	Chota Nagpore ,,
Chittagong ,,	
Presidency ,,	
Burdwan ,,	
Dacca ,,	
Orissa ,,	

The staff of officers employed in the administration of justice and in ordinary duties connected with land revenue numbered 913, on the 31st March 1870. This does not include the police nor the officers employed in the special departments connected with salt, customs, opium, income tax, registration, &c. Out of 656 appointments connected with the administration of the regulation divisions in the government of the Lower Provinces, 495 were held by natives and the rest by Eurasians and Europeans, the salaries varying from 240 *l.* to 1,200 *l.* per annum. In the year preceding, out of 508 appointments, 383 were filled by natives. In the Education Department the total number of offices, with salaries ranging from 180 *l.* to 840 *l.* per annum, was 140, of which 112 were held by natives, seven by Eurasians, and 21 by Europeans.

Legislative.

Seven Acts were passed by the Legislative Council of the Lieutenant Governor of Bengal during the official year, and received the assent of the Governor General. Act III. of 1869, was for the prevention of cruelty to animals. The trust appointed in 1866 to superintend the improvement of the port of Calcutta having collapsed, Act IV. of 1869 makes temporary provision for the completion of the works in progress, by transferring the powers of the trustees to the Lieutenant Governor of Bengal. Act I. of 1870 was rendered necessary by the completion of the Calcutta water supply works, and empowers the justices of the peace to levy a water-rate on the town. Act II. of 1870 amended the law relating to the transporting labourers to Assam, Cachar, and Sylhet.

Besides these Acts, several Bills relating to matters of importance were introduced, but had not become law.

High Court.

Civil Justice.—The figures in the margin show the amount of business, original and appellate, that came before the High Court in 1868 and 1869, and how it was disposed of, and it need only be added (in illustration of the results of appeal), that of the 3,461 special appeals decided during the year under review, the order of the previous court was confirmed in 2,616 cases, reversed in 306, and modified in 64. The value of the property under litigation in these appeals was 810,216 *l.* in 1869 against 1,214,377 *l.* in 1868.

Original:	1868.	1869.
Cases instituted - - -	944	880
,, disposed of - - -	897	845
,, pending at close of year	460	495
Appellate:		
Possible appeals - - -	18,936	16,634
Actual appeals - - -	4,180	3,890
Appeals decided - - -	5,063	4,272
,, pending at close of year	2,130	1,748

Ordinary Civil Courts.

Together with the increase in the number of suits that came before the ordinary civil courts of the Lower Provinces in 1869, there was a most satisfactory increase in the amount of work done, as is apparent from the smaller number of cases left pending at the close of the year. By far the greater number of suits (126,820) came before, and were decided by, native judges in the Moonsiff Courts. The value of suits decided was 2,932,281 *l.* in 1869, and 3,917,671 *l.* in 1868. The cost of the civil courts, including salaries and establishment, was 249,404 *l.*, or about 6,500 *l.* in excess of the stamp fees. This is more satisfactory than the result of the previous year, when the excess of expenditure over receipts amounted to nearly 26,000 *l.* The number of appeals continue steadily to decrease.

	1868.	1869.
Cases instituted -	141,684	145,528
,, disposed of -	146,276	149,584
,, pending at year's close.	20,547	20,359

Calcutta and Mofussil Small Cause Courts.

The number of suits instituted in the Calcutta court of Small Causes was 34,340, or 2,661 more than in 1868-69. The average number of cases for each day was 135·19, and the value of the property contested 164,952 *l.* In the 37 courts of small causes of the interior, presided over by 22 judges, the number

THE LOWER PROVINCES.

number of suits instituted was 40,092, or 10 per cent. more than in the previous year, and nearly the whole of these were disposed of. The total cost of the courts was 28,238 *l.*, of which 26,888 *l.* was defrayed by the fees realised from stamps.

Criminal Justice.—On the original side of the High Court 306 persons were tried, of whom 215 were convicted. On the appellate side 1,381 appeals were heard against 1,296 in 1868.

Two thousand and seventy-six commitments were tried by the courts of session, and 4,691 appeals from the lower courts resulted in the confirmation of 2,931 sentences, and the reversal of 1,233. The courts of magistrates tried 76,074 cases against 78,263 in 1868, and 135,271 persons against 142,748 in 1868. The proportion borne by the persons convicted and committed to those under trial was 56·78, a considerably larger proportion than in 1868.

POLICE.

The police force as it stood at the close of 1869 was more numerous and more expensive than at the end of the previous year. Of the total cost, about 585,000 *l.* was defrayed from Imperial funds, the remainder falling to the share of the municiplities, the railways, and the landowners. Since the close of 1869 considerable reductions have been made in the force, while at the same time the position of the officers and men remaining has been improved, and the Budget estimate for 1870-71, which was 523,428 *l.*, has been reduced to 454,696 *l.*

	Number.	Cost.
		£.
Regular Police -	26,541	584,797
Municipal ,, -	6,789	52,745
Railway ,, -	704	11,984
Village ,, -	186,110	351,424

MUNICIPAL.

The Calcutta Municipal Act came into operation on the 1st July 1863. The income of the municipality in 1869 was 280,722 *l.*, and the expenditure 252,213 *l.* The two great works in hand are those for the water supply and the drainage of Calcutta. The first was sufficiently advanced at the close of 1869 to admit of a regular supply of water to the town; and, with regard to the latter, 138,714 feet, or 26½ miles, of the new system of sewers have been constructed and are in use. The Mofussil municipalities are 23 in number.

PRISONS.

There are 43 regular gaols in the province exclusive of lock-ups. The number of prisoners admitted during the year was 64,729, being rather less than in 1868; the daily average was 19,984, on which the per-centage of deaths was 5·5 against 5·05 in 1868. Of the total number admitted, 58,598 were entirely ignorant, 5,645 could read and write only, and 486 were fairly educated. The gross receipts from gaol manufactures, the work of 8,252 prisoners, was 76,678 *l.* against 61,207 *l.*, the earnings of 9,197 prisoners in 1868. The Alipore Gaol Press and Lithographic department yielded a net profit of 23,775 *l.* There was an increase in the cost of the maintenance of the prisoners, owing principally to the rise in the price of food. The sum total, including salaries, police, guards, &c., was 129,154 *l.*, but deducting the value of the earnings of prisoners, the net cost was 79,951 *l.*, and each prisoner cost about 3 *l.* 12 *s.* 8 *d.*

Transportation to Port Blair being restricted to life convicts it has been found necessary, in order to prevent over-crowding, to employ prisoners largely in out-door labour. The first prison camp was started at Dehree, where 1,000 men were engaged on the Soane Canal works.

POLITICAL.

Cooch Behar is a small State 1,364 square miles in extent, lying on the opposite side of the river to the Garo Hills, and to the north-west of them. During the minority of the Rajah it is under British government. Crime diminished during the year, and steady progress continued to be made in education, the number of schools having increased in four years from seven, with an attendance of 154 pupils, to 55, with 2,049 pupils on the books, and an average attendance of 1,280; and to meet the difficulty found in obtaining artisans for the requirements of the State, a school had been established where 29 young men are being taught to be carpenters, smiths, potters, masons, and weavers. It promises to be self-supporting. The entire revenue of the State for the year was 83,000 *l.*

Bhútan.

The country of Bhútan occupies the southern slopes of the Himalayas between Sikkim on the west, and Assam and Bengal on the south and east. Its estimated

THE LOWER PROVINCES.

estimated area is 64,500 square miles. Civil war seems to be the normal condition of the country; its outbreak in 1869 originated in the jealousies of rival chiefs, and during its continuance the great monastery at Tassisujon, containing a most valuable library, was entirely destroyed.

Tributary mehals of Cuttack.

The Cuttack tributary mehals consist of the wild tract of country to the south of Chota Nagpore. Between them and the sea lies the regulation division of Cuttack. Under British management the country is quiet, and justice is dealt, but the progress of education is not what it should be, and the chiefs appear to take no interest in it.

Keonjhur.

Keonjhur, forming in the map accompanying this Report part of the Cuttack Mehals, is one of the numerous independent Native States included in the Chota Nagpore Commissionership. Its eastern boundary touches Balasore, and it lies about 200 miles west by south of Calcutta. There has been no renewal of the insurrection reported last year; on the contrary the country was as peaceable as could be wished. The Rajah, under the judicious advice of the civil officer at Keonjhur, now takes an interest in the duties of his position, and is well received by the people. These at present pay their dues in service and kind, but Captain Johnstone is trying to introduce a system of money payment as likely to be more beneficial to the Rajah and the people alike, and to induce the latter to consent to a plough tax at the rate of 1 *s.* per plough, a poll tax of 6 *d.* for those who do not own ploughs, and a school cess of 3 *d.* per house in lieu of all other demands.

Tributary mehals of Chota Nagpore.

The tributary mehals of Chota Nagpore lie to the west of Keonjhur, having the Central Provinces on their south. It is a country of wild elephants and tigers, whose proceedings are the most exciting topic in the year's Report. The elephants destroy the crops, and the loss of human life from the tigers has become most serious. Orders have been given for the capture of the one, and the destruction of the other, by every available means.

Naga Hills.

The position of the Naga Hills will be seen, on reference to the map, to be to the northwest of Munnipore. The deputy commissioner, in a tour that lasted 83 days, succeeded in traversing the dense jungle of the Rengma Naga Hills from end to end, and in collecting revenue from the people who had paid none for 20 years. He moreover appointed mouzadars, elected by the Nagas themselves, who entered into agreements for the collection of the revenue in future. He afterwards visited the Kookie villagers, among whom he found several new colonies, who had come from Munnipore. The revenue collected in the Naga Hills is insignificant, and the British Government must for the present be content with the good results of their endeavours to introduce justice, order, and civilisation among a set of Hill tribes, who, with a good officer at their head to guide them, prove docile and manageable enough, but if left to themselves, would return to their former state of misrule. Trade, though quite in its infancy, has increased considerably. Lastly, an experiment has been tried, which has, so far, been found to answer. Delegates have been received from the surrounding hill tribes, who represent their respective communities at Samoogoodting, and receive 1 *l.* per month for so doing. The total cost of this measure amounts to 120 *l.* only, and it is hoped that the more intimate relations thus established with the frontier tribes, and the power it gives the deputy Commissioner of intervening with friendly counsel and advice, will eventually wean them from their lawless habits.

Looshais.

The invasion of British territory by a portion of the Looshai tribe who inhabit the unexplored country between Cachar and Chittagong, and the outrages they committed on British and Munnipooree subjects in the latter half of 1868 were noticed in last year's Report; and it will be recollected that the military expedition which started to pursue the offenders into their own country failed either to punish them or to recover the captives they had carried off. The principal cause of this failure was the delay that took place in the commencement of operations, these being possible only during the cold season; and the Lieutenant Governor in suggesting the dispatch of another expedition in 1869-70, stipulated that this error should not be repeated. The Government of India, however, expressed themselves averse on principle to move bodies of troops and armed police in order to effect reprisals for outrages on any part of our extended frontier, or to admit that when such aggressions or outrages took place it was

THE LOWER PROVINCES.

imperative to chastise the offenders by following them up for days, and even weeks, within their own fastnesses and hills. While a more enlightened policy was under consideration, messengers from some of the leading Looshai chiefs arrived in Cachar to confer with Mr. Edgar, the deputy commissioner of that district, with the object of bringing about a better understanding with us. With these messengers Mr. Edgar returned to the Looshai country, in the hope of procuring a personal interview with some of the principal chiefs. He started on the 20th December 1869, accompanied by a small guard and an officer of the revenue survey, and was absent nearly three months. He met Sookpilal, who was principally concerned in the raids of 1868, and several other chiefs, and he returned sanguine of the good effect that these interviews would produce. Much useful information was acquired at any rate during this visit regarding the chiefs and the country generally. It was proposed by Mr. Edgar that he, or one of his subordinates, should annually visit the Looshai country, see as many of the chiefs separately as possible, hear complaints, use his influence for the adjustment of quarrels, and give small presents to the chiefs, specially rewarding any who had behaved particularly well. In his visit during the cold weather of 1870-71 he was to endeavour, with Sookpilal, or some of his people, to settle a boundary line from the borders of Munnipore to Hill Tipperah, where ordinary British civil jurisdiction should cease, the tribes making themselves responsible for the peace of the districts beyond it.

Chittagong Hill Tracts.

This district has again been annoyed by the unprovoked attacks of independent frontier tribes. The fair at Kassalong was an improvement on that of the previous year, though the traffic was not great. The hill-men who attended were much pleased with what they saw, and with the amusements afforded them. The hill revenue of the district for the year amounted to 2,875 *l.*; the expenditure to 14,400 *l.*, or 2,000 *l.* more than in 1868-69. There are three schools at which 67 boys are under tuition; and two workshops have been started, in which, however, eight pupils only are employed, the people showing a great disinclination to learn any handicraft. Little advance was made during the year in plough cultivation, the majority of the Hill people still preferring their old and terribly wasteful habit of jooming. Joom cultivation was described last year by Captain Lewin. A piece of forest land is fixed upon, the trees and luxuriant undergrowth are cut down and fired, and the seed is sown upon the ashes. Land once joomed cannot be recultivated for eight or ten years.

Garo Hills.

The Garo Hills lie in the bend of the Brahmapootra, where, from flowing west, that river turns due south. Their height is from 3,000 to 4,000 feet. The year's Report shows a steady advance in our knowledge of the people and their ways. The deputy Commissioner has received the thanks of Government for the successful manner in which, generally by peaceable settlement, but where necessary by coercion, he has managed to repress several blood feuds of long standing. These blood feuds, not unlike what went on in Scotland down to so late as two hundred years ago, are a peculiar characteristic of the Garo people. As they are the chief cause of crime, it is to be hoped that they will soon be put an end to, and there is every reason to think that this will be so. There are eight schools in this district, under American missionaries.

Thibet.

Another instance has been furnished of the jealousy with which the Thibetan authorities guard their country against the entrance of foreigners. A party of hill tribes endeavoured to penetrate into Thibet in the character of traders, in the hope of reaching or communicating with the French Roman Catholic missionaries, who were believed to be forcibly detained in that country. They proceeded as far as the frontier fort of Ekra, where they were stopped, and, though their chief Chowsain Gohain showed much persistence and courage, they were reluctantly compelled, after months of fruitless endeavour, to return. The party were treated well, and were supplied with everything they required for their return journey. The Gohain brought back interesting information as to the people and state of the country on the frontier, and received a reward for his services.

FINANCE.

The accompanying statement shows at a glance the revenues and expenditure of this province under every head. Its surplus of nearly nine millions sterling

is

is a larger contribution towards the Imperial charges on account of India than that of any other province :— THE LOWER PROVINCES.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.	EXPENDITURE.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.		£.	£.	£.
Land Revenue	4,028,528	62,798	—	Refunds and Drawbacks	200,795	47,899	—
				Land Revenue	369,369	8,055	—
Forest	24,466	17,394	—	Forest	10,927	—	550
				Excise on Spirits and Drugs	102,898	—	29,329
Excise on Spirits and Drugs	689,918	—	22,084	Assessed Taxes	31,161	16,797	—
				Customs	59,909	—	997
Assessed Taxes	373,466	218,054	—	Salt	12,384	4,645	—
				Opium :—			
Customs	976,493	—	146,864	Cost	1,720,632	170,425	—
				Charges	96,878	—	70,481
Salt	2,583,562	182,617	—	Stamps	26,928	177	—
				Allowances and Assignments under Treaties, &c.	209,630	—	9,218
Opium	5,594,137	—	1,050,579				
Stamps	707,827	—	4,696	Total Direct Demand on Revenue £.	2,841,511	247,998	110,575
Law and Justice	301,230	—	34,838	Administration	162,466	—	66
				Law and Justice	903,352	95,982	—
Police	77,173	2,958	—	Police	584,797	—	26,686
				Marine	531,174	227,900	—
Marine	167,460	—	60,801	Education, Science and Art	232,640	2,705	—
				Ecclesiastical	24,381	—	1,497
Education	43,054	5,792	—	Medical Services	103,891	17,367	—
				Stationery and Printing	50,993	—	15,148
Interest	25,138	16,952	—	Political Agencies, &c.	3,655	—	23
				Miscellaneous	63,284	7,186	—
Miscellaneous	136,050	51,496	—	Superannuation and other Allowances	63,468	1,395	—
				Public Works, Ordinary, comprising :—			
Public Works,—Miscellaneous	27,145	—	2,370	Public Works	866,527	—	141,734
Irrigation	5,487			Supervision and Cost of Land for Railways	20,379	—	111,814
State Railway	8,080			State Railways	8,869	—	21,088
				Interest on Service Funds and other Accounts	40,787	28,446	—
				Public Works,—Extraordinary	374,677	132,040	—
		558,061	1,322,232		6,876,851	761,019	428,631
				Surplus £.	8,892,363		
£.	15,769,214	Net Decrease, £. 764,171.		£.	15,769,214	Net Increase, £. 332,388.	

In 1869-70 the collections from 232,673 estates in the Lower Provinces amounted to 3,911,069 *l.*, being about 62,000 *l.* more than was collected in 1868-69 from 231,076 estates. The total land revenue for the year, as will be seen by the foregoing Table, was 4,028,528 *l.* Land Revenue.

The ports of the Lower Provinces are Calcutta, Chittagong, Balasore, Kuttack and Pooree. Calcutta monopolises nearly the whole of the sea-borne trade. Chittagong, it is true, is a rising port, its customs duties having realised 102,811 *l.*, or nearly 11,000 *l.* more than in 1868-69, but the trade of the other ports is insignificant. The stagnation of trade which caused a falling off in the imports and exports would have had a like result on the customs receipts but for the increased duty on salt, which produced a net surplus revenue of 35,753 *l.* Customs and Trade.

Imports and Exports :	£.
1868-69	51,182,095
1869-70	47,511,598
Decrease	3,670,497

Net Customs Revenue :	£.
1868-69	3,524,302
1869-70	3,560,055
Increase	35,753

The decline in piece goods imported alone showed a decrease of more than a million and a half sterling ; in twist, patent metals, and hardware, all dutiable, there was also a considerable falling off. With regard to dutiable exports, indigo showed a decrease in quantity, but at the same time, owing to the high rates which prevailed at the sales, an increase in value. Eighty thousand maunds were exported, valued at 2,300,000 *l.*, ; oil seeds rose to more than 3,400,000 cwts., valued at 1,700,000 *l.*, or 275,000 *l.* more than in 1868-69. Of free exports there was a falling-off of 556,000 *l.* in cotton, of 107,000 *l.* in sugar, and an increase

THE LOWER PROVINCES.

increase among other items of more than 55,000 *l.* in the value of silk, though the quantity of that article exported (19,980 cwts.) was about 800 cwts. less.

The total American trade was worth rather more than a million and a half; the trade with Australia about 610,000 *l.*

The number of vessels, including native craft, that entered and left the port of Calcutta are shown in the margin. The port of Chittagong promises to be the outlet of a considerable portion of the export trade of Eastern Bengal, and to hasten its prosperity several propositions have been made for opening out communications with the neighbouring districts.

	1868–69.	1869-70.
In - - -	1,050	923
Out - - -	1,047	936

Salt.

Bengal salt is of three kinds; that manufactured by Government before 1863, of which a considerable stock remains; that manufactured privately, on which an excise is levied, and sea-imported salt. From the accompanying figures, in which the year under review is compared with 20 years back, it will be seen how completely the sea-imported salt has taken the place of the Government salt, since the latter ceased to be manufactured. The quantity of salt cleared exceeded the clearance of 1868–69, by 482,680 maunds, and the net revenue exceeded two millions and a half.

	1848-49.	1869-70.
	Maunds.	*Maunds.*
Government salt -	4,242,655	219,538
Excise salt - -	16,450	136,839
Sea-imported salt -	1,610,256	7,427,032
Total *Maunds* -	5,869,361	7,783,409

Opium.

The belief that the cultivation of the poppy is on the increase in China caused a falling off of 1,150,000 *l.* in the net revenue derived from opium; the gross realisations from this drug in 1869-70 were 5,594,137 *l.*; the net revenue nearly 3,780,000 *l.*; the number of chests sold were 45,680, at an average price of about 119 *l.* 17 *s.* 9 *d.* per chest. The number of acres under cultivation in 1869-70 was 801,160 acres, or about 38,000 acres more than in 1868–69. The out-turn for the market of 1871 was estimated at 54,072 chests, and the further extension of cultivation which has been sanctioned will raise the annual provision it is estimated to 60,000 chests.

Excise.

The gross revenue derived from excise was 689,918 *l.*, or about 22,084 *l.* less than in 1868-69; the charges amounting to about 7 per cent. on that sum. The two largest items of this revenue are country spirits (159,524 *l.*), and opium sold and consumed in the country (202,930*l.*); under each of which there was a falling off of about 7,000 *l.*, caused in the case of the first by the high price in Behar of the mowah flower from which it is chiefly distilled, and, in the case of the second, by the increased cost of living in Assam, and by the gradual diminution of the number of confirmed opium eaters among adults since the increased price of the drug—the effect of the free cultivation of the poppy being stopped—led to a large decrease in the quantity consumed by children.

Stamps.

Of the entire revenue (707,827 *l.*) realised from the sale of stamps, 459,000 *l.* was derived from the sale of judicial stamps. Postage, service, and telegraph stamps realised more than 120,000 *l.* against 90,396 *l.* in 1868–69.

Assessed taxes.

The income tax as it existed in 1869-70 was levied on five classes of persons. Class I., the lowest class, including those whose incomes ranged from 50 *l.* to 100 *l.*; Class V., the highest, including those whose annual incomes amounted to 10,000 *l.* or more. In the first class 141,747 persons were assessed; in the fifth, 129 persons, of whom 62, or nearly half, were assessed at Calcutta. The total number of persons assessed under all five classes was 182,779. The total collections amounted to 373,146 *l.*, about 107,000 *l.* being derived from the lowest, and about 62,000 *l.* from the highest incomes. The collections in Calcutta alone amounted to 102,000 *l.*

Forests.

The inspection of the forests of Assam was continued during the year, and it appears that the Luckimpore forests occupy an area of more than 850 square miles, much of which has, however, been heavily worked by private companies; that the Naga Hills contain some of the most valuable forests in Assam, extending over an area of some 1,300 square miles; that in Nowgong they are poor, and have been much injured by joom cultivation. In Sikkim the Government forests are all reserved and have been demarcated, their area amounting to about 704 square miles. In the Eastern and Western Dooars about 750 square miles of forest have been reserved and demarcated. These various forests, and they are not nearly all, have an aggregate area of about 4,000 square miles, and it is most

most satisfactory to learn that the importance of preserving them is fully recognised by the Government of India. THE LOWER PROVINCES.

Passing to tea cultivation, which is pursued in the districts of Assam, Cooch Behar, Dacca, Chittagong, and Chota Nagpore, it appears that in Assam there are altogether 315 gardens, occupying an area of 246,584 acres, of which 28,954 acres only are actually under cultivation. The out-turn in 1868 was 4,306,927 lbs.; in 1869, 4,940,139 lbs., an increase of 639,212 lbs. The average monthly number of imported labourers employed in the gardens was 27,492, and of local labourers 17,486. Tea.

In the Cooch Behar division there are 55 tea estates, in the district of Darjeeling, all of which have sprung up since 1859. Their area is 52,000 acres, of which 10,769 acres are under tea cultivation. The out-turn for 1869 was 1,319,743 lbs., or nearly one-third as much again as in 1868; 433 imported and 7,012 local labourers was the average monthly number employed.

In the Dacca district there are two small gardens; in Sylhet 20, occupying 28,144 acres, of which 2,956 are under tea cultivation. The out-turn was 362,962 lbs., showing an increase of 112,056 lbs. compared with 1868; 235 imported, and 1,070 local labourers were employed. In Cachar there are 122 gardens, comprising 244,488 acres, of which 24,151 are under tea cultivation. The total out-turn of tea was 4,234,794 lbs.; an increase of one-seventh on the preceding year. The number of labourers employed was about 27,000, 11,087 of these being imported.

No returns are given of the tea gardens in Chittagong, but the cultivation there is said to be going on satisfactorily. In Chota Nagpore the year was a very bad one.

The aggregate quantity of tea exported from Calcutta during the year was 12,690,000 lbs. nearly, or 1,255,000 lbs. more than in 1868. Total Exports.

Attempts have been made to acclimatise in the Lower Provinces tobacco seed received from America and Hingunghat cotton from the Central Provinces, but, as yet, with little success. Horticulture, &c.

The Botanical Gardens, which suffered so severely from the cyclone of 1868, have been replanted with several hundreds of trees and shrubs, placed in their natural orders. The Superintendent corresponds with and derives great assistance in the shape of seeds from the Royal Gardens of Kew and Melbourne, and from the botanical gardens of France, Germany, Russia, and Italy. The institution, with its collection of animal and herbaceous plants arranged in their natural orders, and its carefully selected herbanium, is of great value to students.

There is a very good collection of cotton plants in the garden, of which one species, the Sea Island, has proved that it can be grown profitably. The others there appears to be greater difficulty in acclimatising. Native cottons are still cultivated in many districts in Bengal, principally in the lower valleys of the hills and in the terai jungles of Darjeeling, the Garo hills, and the low hills of Chittagong and Comillah. In such places the cultivation is rough, but the rent paid for the land being exceedingly small, the crop, though worth only 3 *d.* a pound, is a profitable one. For the higher class cottons the deep alluvial flat soil of the delta is more suitable. The rent of this land is considerable, but if the plant could be produced as excellent in quality as some of the Sea Island kind that have been valued at 3 *s.* a pound, it is probable that its cultivation here also would be remunerative.

The Imperial grant originally made for public works of every kind in all Bengal amounted to 1,530,450 *l.*; the revised grant amounted to 1,457,216 *l.*, the expenditure to 1,270,452 *l.* Adding to the last sum 203,153 *l.*, spent on local public works from local funds, the total actual outlay for the year was 1,473,605 *l.*, or about a million and a half sterling. PUBLIC WORKS.

The largest reduction took place under the head of Public Works Ordinary, the expenditure on which in 1868-69 came to 1,170,411 *l.*, and in the year under review to 895,775 *l.* This was reduced to 787,600 *l.* Taking the most important items and speaking approximately, we find that 210,000 *l.* was spent on communications against 455,000 *l.* in 1868-69; that the outlay on civil buildings was about 180,000 *l.* instead of more than 255,000 *l.*; and that military buildings cost about 155,000 *l.*, or about 22,500 *l.* less than the preceding year. Public Works Ordinary.

THE LOWER PROVINCES.

The most important works completed in the year were the General Post Office at Calcutta, the Kidderpore and Barrackpore Bridges over Tolly's Nullah and the Circular Canal; some barracks at Dum-Dum and Barrackpore; the earth-work of the Cuttack Trunk Road, and the Ganjam or Madras frontier road and the hill cart road to Darjeeling.

Agricultural.

The agricultural works carried out by the irrigation branch of the Public Works Department are classified under two heads:—

1st. *Extraordinary*, or works that are being executed out of loan funds.—Such are the Orissa and Behar Irrigation and Navigation Works which were taken over by Government on the 1st January 1869. At the time of their transfer very considerable progress had been made on the Orissa undertaking; but with regard to the Behar project little more had been carried out than the surveys and levels necessary for determining the site of the anicut across the Soane and the alignment of the main canals.

The original grant for carrying on these works (430,000 *l.*) was not reduced, but the actual expenditure fell short of it by 65,000 *l.*

2nd. *Ordinary*, or those executed out of revenue, inclusive of repairs to existing works.—The works falling under this head consisted chiefly of embankments and sluices. The original grant for this class of works was 120,000 *l.*, the revised grant amounted to 80,000 *l.*, and the outlay came to 6,000 *l.* less.

It appears that up to the end of 1869-70 the total outlay on the Orissa Canal and Irrigation Works had amounted to 1,100,000 *l.*, that the income realised from them in the year under review was 5,235 *l.*, and that deducting this sum from the total charge for interest and maintenance, the net deficit was 53,862 *l.*

Education.

The number of colleges and schools receiving aid from the State on the 31st March 1870 was 4,189, and the pupils attending them numbered 170,713. The figures represent a considerable increase during the year, amounting to 4¾ per cent. for schools, and something less than five per cent. for pupils. Of the aggregate expenditure of the department, amounting to 316,508 *l.*, the sum of 132,262 *l.*, was supplied by private funds, and the remainder, 184,245 *l.*, by the State, whose contribution to education was 1·17 per cent. on the public income. The receipts of the year from fees amounted to nearly 73,000 *l.*, or about eight per cent. over those of 1868-69.

The chief interest of the annual Report is to be found in its discussion of the relative merits of the system of payment by results as pursued in Bombay, and the Bengal system of grants-in-aid which has been attacked from various quarters. Mr. Woodrow commences by saying that the Bengal rules are, for all practical purposes, constructed on a system of payment by results, that they are easy of application, and that their success in extending higher and middle-class schools is unrivalled in India. A village applies for a grant-in-aid through the deputy inspector, furnishing at the same time a register of information, in which is recorded the strength and resources of the school, if it has existed six months, and the names and social position of the committee of management. The bestowal of the grant and its amount is regulated by the state of education in the immediate neighbourhood. It is liable to be reduced or withdrawn if the school is unfavourably reported on as regards the attendance or proficiency of the scholars, if the managers employ ill-qualified masters, if the accounts are ill-kept, the school-house untidy, or the teachers negligent of their duties. Before the grant is finally sanctioned it must have obtained the approval of three persons—the deputy inspector, the inspector, and the director of public instruction, with all of whom it is an object to reduce, if possible, the cost per head; and it is carefully revised after five years.

The abuses of aided schools are three in kind—1st, delay in the payment of teachers' salaries; 2nd, uncertainty of his tenure owing to the waywardness or caprice of managers, or the factions that sometimes exist in a village; 3rd, fraud or oppression. Mr. Woodrow asserts that these abuses exist wherever the co-operation of the people is accepted; that they are as prevalent in Bombay as in Bengal, but that the system of payment by results ignores them altogether. "The Bengal system attempts to provide for punctuality of payment and for the efficiency

efficiency of teachers, as these are the *sine quâ non* of success. The Bombay system assumes that native managers will at once perceive their vital importance and will act accordingly." The sole charge against the Bengal system, he says, is that its efforts have not been entirely successful, although these very efforts have accomplished a result a hundred-fold beyond that obtained in Bombay. Mr. Martin says that in his portion of the division, which forms a part of Bengal proper, the grant-in-aid system works very well; that there is less fraud, less tardiness of payment (although he acknowledges that this is still a difficult point to deal with), and less irregularity of every kind in the districts where education has been far advanced than elsewhere; and he has no doubt that this improvement will extend hand-in-hand with the general progress. A native inspector, Babu Mukhurji, makes some valuable remarks. That the grant-in-aid system is the one the best adapted to the circumstances of the country, he regards as now unnecessary to argue, upon grounds of abstract justice or policy. "It is enough that it has been steadily worked upon for 14 years and upwards in this part of the country, and that it has established itself in the minds of the people at large. Roads, embankments, municipal improvements, hospitals, dispensaries, and school houses are now being made in Bengal on the grant-in-aid system, which was first introduced in connection with our schools." He is not, however, blind to the faults of the system, which, while suited to comparatively large schools, having intelligent men placed over them as managers, is not, he thinks, adapted, with all its technicalities, to deal with small village schools,—a distinction not often observed by the outside public and by those who have nothing good to say for the grant-in-aid system. Mr. Mukhurji knows many instances in which the students are better taught in aided schools than in some of the Government zillah schools, where the payments are just as regular, where managers have of their own free will requested the inspector to select the teachers, and where they have treated the teachers more as personal friends than as paid subordinates, and with such an experience his tongue is tied against indiscriminate abuse. The principal remedies for the defects that exist in aided schools are to be applied through the deputy inspector, who, if he has not power to order authoritatively the doing or not doing of a thing, has power to advise a course of action and to withhold some good in case the course advised is not followed. Mr. Mukhurji is strongly opposed to adopting the system of payment by results. "However dissatisfied we may feel at the abuses which crop out now and then in our schools, and however depressed we may be at the results not coming up to our expectations," he is of opinion that a comparison of the present with the past yields very strong grounds for hope.

Mr. W. S. Atkinson, the Director of Public Instruction, thus concludes:—"In the opinion of those best able to judge of the operation of the Bengal rules, there is no cause for introducing radical changes. The system has been charged with extravagance, and with encouraging and concealing dishonesty and fraud in the managers of schools to an extent that is publicly demoralising. In regard to the first of these charges, it can easily be shown beyond the possibility of contradiction, that the present system, as actually administered in Bengal, is far more economical to the State than any corresponding system in any other part of India; and, as regards the second, while it is freely admitted that irregularities occur, there is every reason to believe that they are far less numerous and less serious than is commonly supposed. The rules, if properly enforced, are far from powerless to check them, and it is held that but slight, if any, changes are required to make them completely effective." Many interesting results have been brought out by an investigation recently made into the social position of the pupils in schools and colleges, of which one of the most striking is the broad fact that our colleges are almost exclusively resorted to by the middle classes of society, and much more largely by the poorer than by the richer sections of those classes. The lower orders contribute nearly one-half of the total number of students in schools of all descriptions, and supply about one in four of all the students who are learning English. "In the face of these results," says Mr. Atkinson, "it will be impossible to deny that the downward filtering of education has progressed steadily, if not rapidly, under the voluntary system established in Bengal;" and he is of opinion that when State aid is supplied sufficiently to meet the growing demand, the rate of progress will advance with a rapidly accelerating force.

THE LOWER PROVINCES.

Registration.

The total number of registrations effected in 1869-70 was 252,193, or 17 per cent. more than the year before; and the receipts of the department amounted to 41,370 *l.*, from which, after payment of expenses, there remained a net surplus of 6,478 *l.*

Emigration.

The number of emigrants dispatched to the Colonies during 1869-70 was 12,043, against 10,274 in the preceding year; 5,360 labourers of both sexes were sent to Assam, Cachar, and Sylhet, the total number employed in these tea districts at the close of 1869 being 20,950. The time-expired labourers employed in Cachar number about 16,000. Labourers in the tea plantations are under Government protection, and in every district there is a Government inspector whose duty it is to look after their interests.

Medical.

Calcutta Medical College Hospital - - - -	42,432
Calcutta North Suburban Hospital - - - -	14,071
Calcutta Native Hospital and its three branches - - -	153,065
155 Mofussil hospitals and dispensaries - - - -	385,812
	595,380

The number of patients to whom relief was afforded by the various institutions named in the margin was close on 600,000, and the list given is not a complete one; 340,000 persons were vaccinated, or 80,000 more than in 1868-69; 1,106 lunatics were admitted to the five asylums, of whom 16 per cent. were discharged as cured.

Following the example of the Punjáb Government, it has been proposed that in order to provide a more extensive and useful subordinate medical agency in the interior, elementary classes shall be established at the colleges of Patna and Dacca, and that in certain districts the civil surgeon shall receive a few apprentices at the dispensary or hospital. By these means it is hoped that the Native hakims will acquire a practical knowledge of the first principles of medicine, and the properties of common drugs, and turn their knowledge to account in remote parts of the country where the assistance of trained European medical men cannot be obtained.

THE NORTH WESTERN PROVINCES.

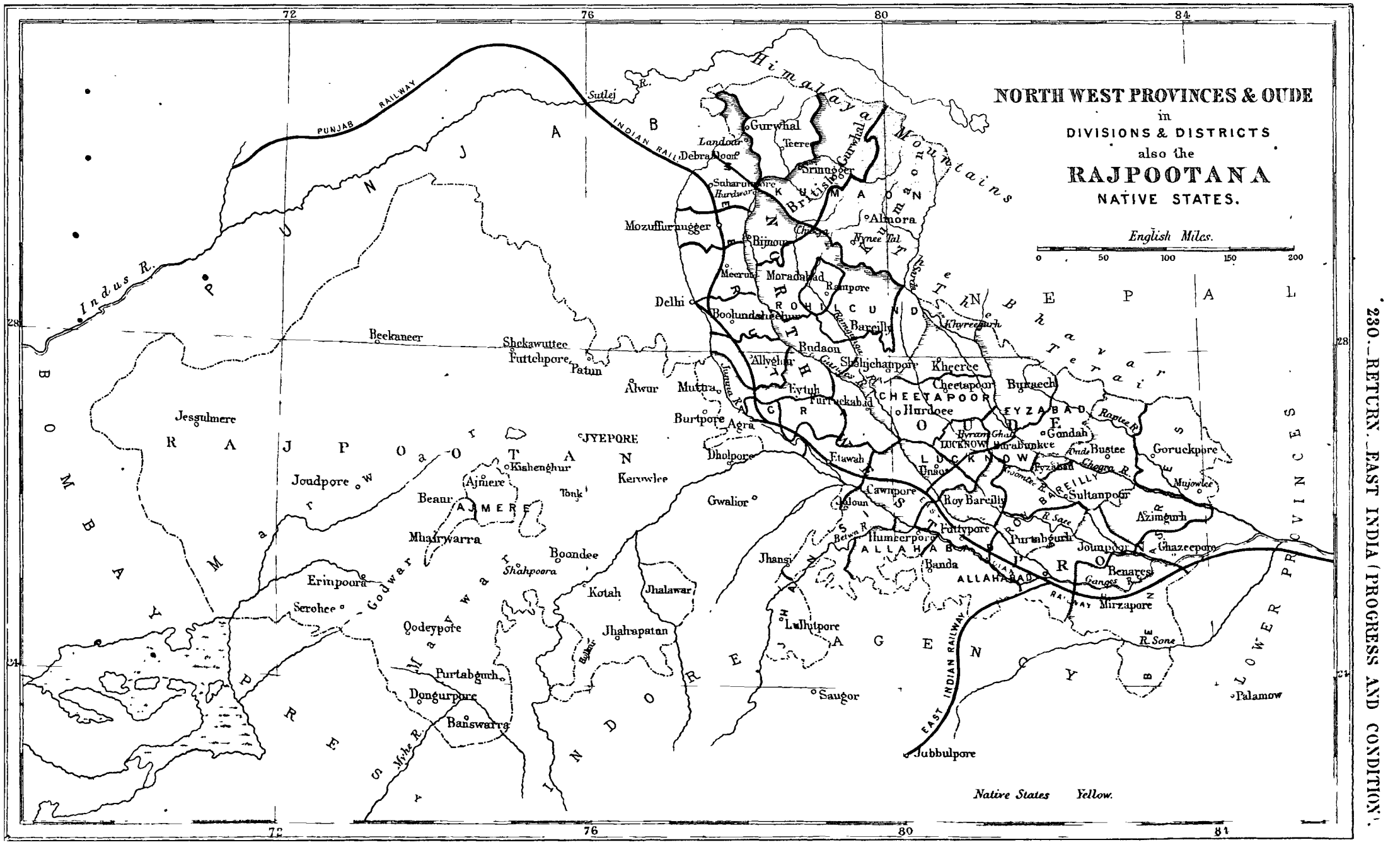
NORTH WESTERN PROVINCES.

The territory which comes under the jurisdiction of the Lieutenant Governor of the North Western Provinces has an area of 83,687 square miles, and a population numbering more than 30 millions of inhabitants, or about 361 persons to the square mile. The Province is, therefore, nearly equal in extent to England, Wales, and Ireland together, and more thickly peopled than Great Britain alone. In shape it resembles an irregular crescent, whose western extremity reaches the snow line of the Himalayas, while the eastern stops short at the base of the mountains at the frontier of Nipál. From the south-west a small strip of British territory breaks into the agglomeration of Feudatory States controlled by the Central India Agency; and away to the west, belonging to, but very distant from, the main Province, lies the little district of Ajmere in the heart of Rajpootana.

The North West Provinces have four natural divisions: (1) the Kumaon Himalayas, where are the tea plantations and the most important of the forest tracts of the Province; (2) the plains north of the Jumna and Ganges; (3) the tracts south of the Jumna and Ganges; and (4) Ajmere. The rivers come down from the hills, and sweeping round with the bend of the crescent pursue their course through the length of the Province. The Jumna, flowing for many hundred miles nearly parallel to the Ganges, joins it at Allahabad; the Ganges is afterwards joined by the Goomtee and the Gogra, which have traversed Oude. The Province has many large and important towns, among which may be mentioned Delhi, Agra, and Allahabad, the capital, all on the Jumna; Lucknow on the Goomtee; Cawnpore, Benares, and Ghazeepore, on the Ganges.

Of the total area (53,363,152 acres), 23,747,268 are cultivated. Of the 30 millions of inhabitant 18 millions are agriculturists; and with regard to caste 26 millions are Hindoos, and rather more than four millions Mahomedans.

The Province contains eight Commissionerships, which are divided into 36 districts. These are again divided into 440 sub-districts, these sub-districts into "hundreds," and the "hundreds" into townships. These various territorial executive districts are presided over severally and respectively by a commissioner, a "magistrate and collector," a sub-collector, and a village accountant. The Lieutenant


NORTH WEST PROVINCES & OUDE
in
DIVISIONS & DISTRICTS
also the
RAJPOOTANA
NATIVE STATES.
English Miles.
0 50 100 150 200
Native States Yellow.
Himalaya Mountains
PUNJAB RAILWAY
INDIAN RAILWAY
EAST INDIAN RAILWAY
Sutlej R.
Indus R.
Ganges R.
Jumna R.
Gurwhal
Landour
Debra Doon
Saharunpore
Hurdwar
Srinuggur
Almora
Nynee Tal
Mozuffurnugger
Bijnour
Meerut
Moradabad
Rampore
Delhi
Boolundshuhur
Bareilly
Budaon
Allyghur
Shahjehanpore
Kheeree
Cheetapoor
Byraech
Fyzabad
Gondah
Bustee
Goruckpore
Mujowlee
Hurdoee
Futtuh
Furruckabad
Etawah
Dholpore
Agra
Burtpore
Jeypore
Jesgulmere
Joudpore
Kishenghur
Ajmere
Beawr
Tonk
Kerowlee
Gwalior
Cawnpore
Oonao
Roy Bareilly
Sultanpoor
Azimgurh
Futtypore
Humeerpore
Purtabgurh
Joumpoor
Ghazeepore
Jhansi
Banda
Benares
Mirzapore
Beekaneer
Shekawuttee
Futtehpore
Patun
Alwur
Muttra
Erinpoora
Serohee
Godwar
Shahpoora
Boondee
Kotah
Jhalawar
Jhalrapatan
Lulitpore
Saugor
Jubbulpore
Purtabgurh
Dongurpore
Banswarra
Myhie R.
Sone R.
Rapti R.
Gogra R.
Ramgunga R.
Kalee Nuddee
Betwa R.
Sinde R.
Chumbul R.
Kharreeghur
Bhawur Terai
Palamow

Lieutenant Governor is aided by a Revenue Board in all matters relating to the revenue and the land, and in the administration of civil and criminal justice by a high court. NORTH WESTERN PROVINCES.

The small British districts of Ajmere and Mhairwarra are 225 miles west of Agra, and nearly the same distance south-west of Delhi. The area of the two districts is 2,672 square miles; the population amounts to 426,268, or 160 to the square mile.

The rains of 1869 were late, but they came in sufficient time to avert the calamity that would have followed a repetition of the scarcity of the preceding year. By the end of July rain had fallen all over the Province, but not until the middle of September were the prospects of a good autumn harvest so assured as to allow the Government to allay, by an official announcement, the alarm which the diminution of the stocks and the consequent rise in prices had produced. For some months, however, the outlying district of Ajmere had to bear, in common with its neighbours in Rajpootana, the successive calamities of drought, locusts, and blight. Naturally, such a season affected the revenue. In Ajmere there was a considerable remission of land revenue; the failure of the crops from which liquor is distilled diminished the receipts from excise; the large number of prisoners, and the excessive price of food, largely increased the expenditure under "gaols;" and further expense was caused by the necessity of granting compensation to servants of Government, whose salaries in such times of scarcity were insufficient to afford them the means of livelihood; with all these sufferings the country was tranquil, and the year was marked by material progress in several directions. In Ajmere the vexatious Customs and transit duties were abolished; throughout the Province charitable dispensaries were established wherever the unhealthiness of the climate, or the wish of the people, expressed in voluntary contributions, showed them to be required. Most important of all was the movement towards the foundation of a central college at Allahabad, where the students of the North Western Provinces will be able to receive instruction of a higher order, instead of being compelled to go so far as Calcutta to obtain it. Popular feeling was strong on the point; the native noblemen and gentry had subscribed liberally; and it was hoped that the scheme would soon be carried out. The reduction of the budget grants throughout India, on the discovery of the impending deficit, seriously affected the North-Western Provinces; 182,000 *l.* had to be surrendered in the Public Works Department, out of a grant of 752,000 *l.*; and, in the Revenue Department, settlement operations were impeded by a similar reduction. Municipal government is becoming year by year more firmly established; and, on the 31st March 1870, no less than 63 towns throughout the Province were subject to the Municipal Act of 1868. Their statistics of income and expenditure show that the committees are exercising an important influence in drawing forth local resources, and in supplying local requirements. The principle of self-government is kept steadily in view; and the action of the superior authorities is confined mainly to securing a close adherence to the law in the preparation and application of municipal rules and bye-laws, and to a watchful supervision over the expenditure. Great care is also taken to prevent the obstruction in any way of trade. The restrictions recently laid upon the octroi system have not been followed by the evils that were anticipated. The rates of assessment upon the commodities still taxable have been increased; in many places it has been found necessary to supplement the octroi by a tax on houses, or lands, trades, or professions; and support has had to be withdrawn from many objects which, above all, require support; but, amid all their difficulties, the committees are said to be doing a good work, and increasing benefit may be expected from them as time goes on, and the people grow familiar with the system and with the many opportunities of improvement and self-government which it offers. The writer of the report concludes: "The annals of the year are, happily, few and brief, for there is less to tell of the drought and famine. The first months of the year were overshadowed with the calamity of the preceding year; the closing months were marked by plenty and general contentment. The Government, it is true, were burdened with the anxiety of a financial crisis; but the people were content at the prospect of an abundant harvest and reviving trade." Summary of events of the year.

Civil Justice.—With the exception of the distant province of Ajmere, the hill districts of Kumaon and a few other portions, the Civil Courts are all amenable JUDICIAL.

NORTH WESTERN PROVINCES.

Ordinary Civil Courts.

to the High Court at Allahabad. In the exceptions mentioned, the powers of the Courts are not defined by any Act of the Legislative Council, and follow the spirit rather than the letter of the laws in force in the older provinces. There were 71,813 original suits and 10,517 appeals in the Courts subordinate to the High Court, and 7,159 suits in the courts not subordinate; the aggregate being in excess of that of any year since 1861, with the exception of 1866. The increase of work in the first class was mainly in the upper districts; the rise and fall in the number of suits varying with the severity of the pressure of famine. It is found that, while a moderate scarcity drives men to incur debts and to sign bonds, which are followed by a train of civil suits, extreme pressure puts a stop to litigation, as creditors know that the debtors cannot pay. The Courts finally disposed of 81,968 cases, or 5,551 more than in the preceding twelve months; the contested cases bearing to the whole number the proportion of 41 per cent. In the second class of Civil Courts, those not subordinate to the High Court, there was a considerable decrease in the number of suits, owing to the famine-stricken district of Ajmere having contributed about 1,000 less than usual.

Small Cause Courts.

The small Courts in the Province are four in number; at Benares, Allahabad, Agra, and Dehra Doon. The increase in the number of suits brought before them, from 5,485 in 1868 to 7,834 in 1869, testifies to their popularity.

An important event of the year in relation to judicial administration was the appointment of a Government Advocate for the Province. His duties are to advise the Government and its officers upon legal questions; to conduct the prosecution of European British subjects before the High Court, and in sessions cases when required; and to appear in certain suits on behalf of Government. The want of a competent legal adviser had long been felt, and the very favourable result of the litigation in the High Court is noted as one of the good results of the appointment.

Criminal Justice.—Sixteen original cases came before the High Court in its criminal jurisdiction; 106 capital sentences were referred to it for confirmation; and 785 sentences were referred from the Sessions Courts (against 821 in 1868), of which 59 per cent. were confirmed.

The working of the magisterial courts was most noteworthy. In a year when the labours of many magistrates were doubled by the work thrown on their hands by distress and famine, and when crime increased far beyond the average, the persons under trial at the close of the year were fewer in number than in 1868; the per-centage of persons convicted and committed increased from 66 to 68 per cent.; and of 292,033 witnesses who attended all but 14,403 were discharged on the first day. The distinction of honorary magistrate was conferred on 15 persons during the year, raising the number to 65.

	1869.	1868.
Persons under Trial -	124,097	106,836
„ Convicted or Committed.	83,631	70,249
„ undisposed of -	990	1,241

Police.

The number of offences cognisable by the police rose from 76,671 to 93,092, or by 21 per cent.; but, on the other hand, considering the exceptional cause of this increase, it is satisfactory to learn that there was but little increase in violent crime, and that there were extremely few instances of grain robberies, or of crimes committed by starving and desperate men wandering about the country in search of food. The conduct of the police in detecting crime, and in meeting these unusual inducements to theft and robbery, was very creditable to them. Not less than 28 per cent. of the crimes committed, and 73·7 per cent. of the persons tried were prosecuted to conviction; and there is reported to be a steady progress in the amount of sense and legal acumen displayed by them in making arrests, and in collecting legal proof. The results of the great care taken of late to put down kidnapping seem to prove that the suspicions as to its extreme prevalence have been exaggerated. The writer of the report regrets the loss to the Police Department of Mr. F. O. Mayne, C.B., who, during his tenure of the office of Inspector General, originated and carried through many important reforms, and has now been promoted and gone elsewhere. There are six central, three divisional, and 32 district gaols in the Province.

Gaols.

The total number of prisoners of all classes rose from 84,327 to 105,300, and the daily average from 15,704 to 18,587, the rates of increase being 24·87 and 18 per cent. respectively. As soon as the gathering in of the autumn harvest restored

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restored comparative plenty to the land, the rate of admissions sensibly decreased. From 1846 till the Mutiny the gaol population stood pretty steadily at 20,000; from 1857, when the gaols were emptied, the number has risen year by year, and it is said that the number now recorded may therefore be considered as nearly equal to the average normal gaol population of the Provinces. The gross expenditure of the year amounted to 107,012 *l.*, which is larger by 21,048 *l.* than that of 1868, the larger number of prisoners and the cost of food combining about equally to account for the increase. The cost of rations per man rose from 1 *l.* 16 *s.* 3 *d.* to 2 *l.* 16 *s.* 4 *d.* a year; but strict economy and the value of manufactured goods made the net cost of each prisoner 5 *l.* 13 *s.* 3 *d.*, or about 6 *s.* 2 *d.* more than in 1868. Twenty-four per cent. of the convicts are engaged in manufactures; 18 per cent. in menial services; 41 per cent. in building, repairs, &c. The emaciated condition of a large number of the prisoners on their admission increased the rates of sickness and death. The number of persons receiving instruction was about 7,000.

Education.

No change took place during the year in the supervising staff of the Educational Department, which comprised 108 inspectors of various grades, subject to the control of a director of public instruction. The entire number of pupils was 200,831, or 0·67 per cent. of the population; of these, 189,292 were boys, and 10,719 were girls. Of this number, about one-fourth (52,179) are brought up at indigenous schools, which owe nothing to the Government, and do not come under the inspection of the department, and about half (102,358) at the village circle or "Hulkabundee" schools, where the standard of learning is for the most part of an elementary character. Of the rest, 10,000 are girls, and 10,000 are taught in schools established by private charity, mostly by the different missionary societies. Only about 30,000 receive what may properly be called a liberal education; half of these learn English at the colleges and zillah schools of the Government, and the private schools which receive grants in aid; half receive a superior vernacular education at the Tehselee schools. Compared with previous years, and with other provinces, these results are not unfavourable, but when it is considered that the number of learners, were education universal, should be five millions, or, excluding girls, that there should be 2½ millions of boys receiving instruction they can only be regarded as a standard by which to test the progress that shall be made in future years. The total number of colleges and schools of all kinds is shown in the margin.

	Government.	Private.	Total.
Colleges - -	6	4	10
Schools, Higher	9	8	17
,, Middle	14	117	131
,, Lower	3,256	4,597	7,853
Girls' Schools -	383	116	499
Normal Schools	9	5	14
	3,677	4,847	8,524

The total cost of education was nearly 190,000 *l.*, of which 108,925 *l.* was paid by Government, and the rest by the local cess, by private contributions and fees. The proportions borne by direction, inspection, and instruction were 3·8, 16·7, and 80·5 per cent. respectively.

The Government colleges keep up their numbers, and they are now resorted to by lads, who, having matriculated from the zillah schools, come to the colleges to carry on their education in the higher branches. Still the classes are small, and it will be well when the teaching power, which is now distributed over the four colleges at Agra, Bareilly, Benares, and Ajmere, can be combined in one central college at Allahabad. In these colleges the boarding-out system is popular and successful. The zillah schools, 27 in number, rank next. Then come the Tehselee schools, 225 in number, with an attendance (15,862) slightly exceeding that of the previous year. Their use is to hold up a higher standard to the lower class of schools, and to furnish an opportunity to boys trained in the village schools to carry on their education further if they are so disposed. The Hulkabundee schools form the great means by which the ignorance of the mass of the population is to be reached. Education in them is provided free to every one who desires it, the cost being defrayed from the educational cess paid by the land. The number of these schools is at present miserably defective, there being about one only to every 26 villages, or one to 24 square miles throughout the North West Provinces; but Sir W. Muir is satisfied, after personal inspection, that a great and yearly increasing movement is being carried out by them, the effect of which, in a few more years, will be manifest in the comparative enlightenment of the agricultural community. The progressive tendency of female education is shown not yet by figures so much as by the gradual

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gradual abandonment of the old prejudices against the education of women. There is no longer any hostility to the movement, and the rural population willingly send their daughters to schools of an elementary character, where, besides reading, writing, and cypher, they learn needle and bead work; but their conversion is not so decided as to make them come forward voluntarily for the furtherance of the education of their daughters by building schools. The male and female normal schools make steady progress, and are accomplishing an important work in raising the qualifications of the teachers of the masses.

REVENUE.

Land.

The cold weather crop of 1869 was considerably below the average, and the autumn harvest, which promised to be very abundant, was much injured in some parts by the late rains. The total collections on account of land revenue realised during the year amounted to 4,089,889 *l.* The collection of so large a sum with little trouble in a year of much distress, is evidence of the lightness of the tax, and of the successful administration of the Revenue Department. The increase in this branch of revenue, arising from the new assessments under the recent settlements, amounts to nearly 2,400 *l.*, and it is anticipated that the entire increase, on the completion of the re-settlement in progress will be about half a million sterling.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Land Revenue	4,089,889	97,931	—
Tributes from Native States	114,269		23,842
Forest	72,612	7,273	—
Excise on Spirits and Drugs	175,257		48,633
Assessed Taxes	151,990	89,704	—
Customs	49,839		6,155
Salt	488,728	3,070	—
Stamps	358,191	25,433	—
Law and Justice	102,374		5,507
Police	64,376	16,448	—
Education	5,619	506	—
Interest	61		54
Miscellaneous	26,369		13,919
Public Works:			
Miscellaneous	32,365		—
Irrigation	324,198	96,433	—
£.	6,056,137	336,798	98,110
		Net Increase, £. 238,688.	

EXPENDITURE.	1869-70.	Compared with 1869-70. Increase.	Compared with 1869-70. Decrease.
	£.	£.	£.
Refunds and Drawbacks	22,276		389
Land Revenue	431,140	70,607	—
Forest	42,341	1,163	—
Excise on Spirits and Drugs	39,125		536
Assessed Taxes	828	543	—
Salt	74,823	6,238	—
Stamps	17,030	913	—
Allowances under Treaties, &c.	76,288		1,303
Allowances to District and Village Officers.			5,819
Total Direct Claims on the Revenues	703,851	79,464	8,547
Administration	122,442		2,101
Law and Justice	419,222	11,854	—
Police	383,441		2,098
Education	108,925	8,238	—
Ecclesiastical	19,410		107
Medical Services	50,630	590	—
Stationery and Printing	22,870	2,029	—
Political Agencies	36,564	743	—
Miscellaneous	87,395	61,083	—
Pensions, &c.	38,412		1,258
Public Works, Ordinary:			
Public Works	775,066		207,284
Supervision and Cost of Land for Railways.	11,301		4,652
State Railways	153	153	—
Interest	4,667	1,548	—
Public Works—Extraordinary	219,062	116,411	—
£.	3,003,411	282,113	226,047
Surplus	3,052,726		
£.	6,056,137		
		Net Increase, £. 56,066.	

Cotton.

In the North West Provinces, as in Bombay and Berar, the cotton crop suffered severely from the unseasonable rainfall of September and October 1869. The area under cultivation increased from 865,000 to 1,118,560 acres, and an average harvest would have produced more than 80 millions of lbs., whereas the actual out-turn amounted to no more than 37 millions of lbs.

PUBLIC WORKS.

The retrenchment on Imperial grounds of about 180,000 *l.* out of a budget which had been passed for 762,500 *l.* paralysed the department in many of its most important branches. The revised allotment of 584,500 *l.* was thus apportioned:—Military works received, 218,000 *l.*; civil buildings, 105,950 *l.*; communications,

munications, 114,000 *l.*; establishment, 138,450 *l.*; tools and plant, 7,600 *l.*; miscellaneous, 500 *l.* But this proportion was not strictly observed in the actual expenditure, while considerably less than the sum allotted was spent on civil buildings and communications. The outlay in two cases, establishment and tools and plant, was to an equal degree in excess of the estimate.

The department is divided into three circles of superintendence, comprising 18 divisions. The Chief Engineer cannot express much satisfaction with the retrospect of the year; his remarks on the constitution of the department contain some valuable suggestions. He would relieve executive engineers of divisions from all management of the accounts part of the business, by giving them a better class of accountant, so that their whole time might be devoted to supervision and management of works; he would, in a great measure, transfer the preparation of projects from the executive engineers to the superintending engineers of circles, and he would bring the latter into closer connection with the head of the department, whose time is, to a great extent, taken up with corresponding with those officers at a distance to the detriment of his larger administrative duties.

Agricultural.

1869-70: Area irrigated, 1,088,881 acres.

1866-67 - - 4·94
1867-68 - - 3·44
1868-69 - - 8·22
1869-70 - - 7·88

The total area irrigated by canals in the North Western Provinces in 1869-70 was 24 per cent. less than the year before, owing to the seasonable rains of the latter half of the year under review, which made it unnecessary to have recourse to artificial irrigation; it denotes a loss of revenue to the Government, but a good season for the agriculturalists. The falling off in the canal revenue was but 16 per cent., however; and the direct financial result, after deducting expenditure from the gross income of 324,198 *l.*, was the net profit of 212,415 *l.* or 7·88 per cent. on the entire capital of 2,695,621 *l.*, justifying the anticipation expressed in the Report for 1868-69, that any great rise of return is always, to a considerable extent, of a lasting character. No new canals have been completed since 1866-67, and the expansion of the benefits of irrigation is due, therefore, only to a fuller development of the existing works, and to better management. Considerable progress was made in the construction of the Agra Canal, commenced in October 1868, the expenditure during the year amounting to 50,000 *l.*; and a scheme, the estimated cost of which is 820,000 *l.*, for the irrigation of the districts of Bijnour, Moradabad, and Budaon, was submitted to the Government of India. Until the exhausted stores of food were replenished by the autumn crops, it was found necessary in some districts to provide work for the labouring classes; and, for four months, 1,441 was the average daily number of persons who obtained a livelihood in this manner.

Ganges Canal.

The Ganges Canal waters the land situated between the Jumna and the Ganges. Commencing at Hurdwar it flows south for 80 miles. East of Delhi it divides into three branches; the northern and main canal finally joins the Ganges again at Cawnpore, while the two lower branches are carried on to the Jumna. The waters of this canal are carried over 654 miles of main canals and 3,112 miles of distributaries, the latter having been increased 72 miles in the course of the year. The canal paid a net profit at 7 per cent.; the gross income of 256,896 *l.*, being an increase of 17,395 *l.* over that of the previous year of unprecedented demand.

Eastern Jumna.

The Eastern Jumna Canal is 130 miles in length, and has 606 miles of distributaries. Its revenue of 65,727 *l.* was slightly greater than in 1868-69, giving a net profit of 25·7 per cent. on the capital expended.

Forests.

Forests produced a net revenue of 30,271 *l.* or 6,110 *l.* more than in 1868-69. The most valuable tracts are those of Kumaon and Gurhwal; indeed it is from these two districts that nearly the whole of the forest revenue is derived.

Post Office.

The Postal Establishment on the 1st April 1869 consisted of a staff of 6,724 persons superintended by a Postmaster General and 15 inspecting postmasters. The mails were carried over 8,478 miles. A curious feature of the year was the introduction of bicycles for postal purposes. "Bicycle peons" now clear the letter boxes of the station of Allahabad.

Dispensaries.

Out-door patients, 602,729.
In-door patients, 23,391.

The opening of 15 dispensaries during the year raised the total number to 132; and, owing mainly to the prevalence of disease, there was a considerable increase in the number of patients. There is an asylum for the blind, and one for lunatics at both Benares and Bareilly; at Agra there is a medical school; at Almorah an asylum for lepers.

Vernacular literature.

The number of newspapers published in the North Western Provinces increased from 19 to 26 during the year, and their aggregate circulation from 5,016 to 7,064.

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7,064. In political matters nothing of any importance was noticed in these papers, but on general and educational topics many interesting articles appeared. The vagrancy question was treated with some ability; the substitution of Hindee for Persian as the court language became the subject of much discussion; and a remarkable set of articles appeared in the "Allygurh Gazette," giving Syud Ahmed's impressions of his visit to Europe, and reflecting strongly upon the backwardness and ignorance of his own country. The letters drew forth several able replies. Eight monthly magazines are published, and the total number of publications increased from 468 to 564. The full prize of 100 *l.* offered by the Lieutenant Governor for the encouragement of vernacular literature was awarded to Moulvie Nuzeer Ahmed for "The Bride's Mirror," a simply told tale of Mahommedan domestic life in Upper India, which has met with great approval, especially among families and castes who support female education.

Public health.

The year 1869 was essentially an unhealthy one, owing to the dry and prolonged hot season, and the heavy flood rain coming at an unusually late date. The death-rate rose from 10·8 in 1868 and 12·5 in 1867 to the high figure of 17·9 per 1,000. Small-pox and cholera were the most fatal diseases.

Government Press.

	Out-turn.	Net Profit.
	£.	£.
1868-69 - -	29,464	6,081
1869-70 - -	32,069	7,454

The transactions of the Government press show that while the printing work has increased year by year, the management has also steadily increased in economy and efficiency.

Rampore State.

The little independent state of Rampore is in the centre of the Rohilcund division; it has an area of 905 square miles and a population of 484,961, or 535 to the square mile. The British system of administration was introduced in 1840 by the then reigning Nawab. Kulub Ali Khan Bahadoor is most anxious to acquire the title of a beneficent and just ruler, and he has about him many faithful and good officers. He contributed most liberally to the establishment of a college at Allahabad, and in many ways has testified his loyalty and good feeling towards the British Government.

	1869-70.	1868-69.
	£.	£.
Receipts - -	137,069	130,000
Expenditure -	135,767	112,285

OUDH.

OUDH.

The northern boundary of Oudh is the lower range of the Nipál Hills; on the remaining three sides of it lies the territory of the North Western Provinces. Oudh is a part of the alluvial valley of the Ganges and possesses no mountains. Its rivers, descending from the Himalayas, traverse the provinces in a parallel and south-easterly direction, and afford abundant sources of irrigation. The names of the most important of them are the Rapti, the Gogra, the Gûmti, the Saee, and the Ganges, the last-named river being the boundary line between Oudh and the North Western Provinces for a distance of some 180 miles. The length of the province is about 270 miles; its breadth about 160 miles, and its area, about equal in extent to Holland and Belgium together, is estimated at 23,730 square miles, of which 12,985 square miles are returned as cultivated; 6,577 as culturable, and 4,168 as unculturable. With regard to communications, there are 3,893 miles of roads of the three classes and 42 miles of railway connecting Cawnpore and Lucknow. There are as yet no canals in existence. Oudh became a British province in 1853, and is under the care of a Chief Commissioner. It is divided into four commissionerships, comprising 12 districts, each under its deputy commissioner. The districts are again sub-divided into 42 "Tahsíls." The population of the province is about 11¼ millions, or 474 persons to the square mile, a density that is not even equalled in Belgium. The large majority are Hindoos; they are described as simple, brave, and, among themselves, truthful. Sixty years of oppression failed to make them lawless, or to crush out their energy.

Land.

The figures in the margin show approximately how the greater portion of the total area of land (11,151,589 acres) held direct from Government is divided. Out of the province's total area of 23,730 square miles, 10,044 square miles are held by talukdárs, and 6,455 by small zemindars and proprietary communities. The total number of holders or shareholders of the 11,151,589 acres is 51,625. Of land not held direct from Government no complete data can yet be

	Estates.	Villages.	Acres.
Talukdárs paying more than 5000 *l.*	51	5,929	2,609,671
" " from 500 *l.* to 5000 *l.*	320	7,221	3,818,969
Small Zemindárs - - -	1,576	2,905	1,441,962
Proprietary Communities - -	2,970	5,615	2,689,737
Rent-free Tenures - - -	832	1,179	315,746
Proprietary Cultivators paying separately less than 10 *l.*	350	374	148,676

be given. The gross receipts from land revenue rose from 1,256,259 *l.* to 1,309,519 *l.*; the unrealised balance was 2·79 per cent. of the demand, an improvement of 2 per cent. on the previous year. The season was a favourable one. OUDH.

To ensure simplicity and unity of control, judicial, executive, and fiscal functions are united in one person. The system has worked well, but of late there has been the same complaint here as in the Punjab, that the judicial work of the province occupies too large a share of the attention of commissioners, deputy commissioners, and tahsildárs. There are but 162 paid and unpaid judges, or one to 69,273 persons and to 148 square miles; 52 of these are Europeans, 110 are natives. Judicial.

Criminal Justice.—There was a great advance in the amount of work done by the unpaid magistracy, and in the general dispatch of business throughout the Province. Out of a total of 45,060 criminal cases dealt with in 1869, convictions were obtained in 29,220; the figures in 1868 having been 39,627 and 24,474 respectively. The deficient harvest of 1869, and the export of grain to other provinces, were the main causes of the large increase in petty thefts and riots; it must be remembered, too, that the population is naturally warlike, and that it contains a large number of men who were disbanded during the mutiny. There was the marked decrease in the number of criminal appeals from 3,939 to 1,606.

Civil Justice.—Since 1860 there has been a steady increase in the number of civil suits instituted annually, a sure sign of the confidence of the people in the courts, and apparently of an increase of wealth; excepting the small cause courts the judicial agency has not been strengthened. Including miscellaneous cases, the total number of suits disposed of was 45,608, 14 per cent. having been dealt with by the small cause courts; 5 per cent. by honorary assistant commissioners; 41 per cent. by tahsildárs; 34 per cent. by assistant and extra assistant commissioners. There was a decrease in the number of appeals. The value of suits disposed of was 238,113·*l.* against 270,861 *l.* in 1868.

	Original Suits.
1860 -	6,944
1869 -	26,867

The 13 existing gaols are inadequate for the prison population of the Province. Comparing the average of 1869 with that of the four preceding years, the increase was 21·28 per cent. More than half of the gaol population are thieves; while rioters, "the most respectable portion of the gaol population, the most honest, truthful, and influential with their fellows," contributed eight per cent. Remembering that gaols deal only with convicted criminals, and that the year was an exceptional one, the proportion of one in 940 of the population is small compared with that of England and Wales, where in 1865 the proportion of convictions was one in 151 of the population. Few escapes are attempted, the love of liberty, it is said, the chances of escape and the uncertainties of recapture, being more than balanced by the certainties of appetising labour and of wholesome food. In a year when the courts and prisons alike were crowded with the victims of hunger, the mortality was 2·09 against the 8·46 of former years. With regard to education, 155 prisoners were well educated; 105 could read, and 386 could read and write; the number under instruction rose from two to three per cent. The gross cost of the gaols was 26,394 *l.*, from which must be deducted the value of prison labour, 1,687 *l.* This gives a net cost of about 3 *l.* 6 *s.* for each prisoner. Prison.

	1869.	1868.
Total number - -	18,750	16,088
Daily average - -	7,477	6,523

For 1869-70 the total police force consisted of 8,289 officers and men, or but one for every 1,358 inhabitants, and for every 2·89 square miles. Their cost (112,586 *l.*) would have been covered by a poll-tax of less than 2½ *d.* per head of population, The regular police are greatly assisted in the detection of crime by the indigenous body of rural police, called chowkedars, who numbered in 1869 some 32,916. They are paid by the landowners at a cost of 76,430 *l.*; each man has about 72 houses to look after, and receives in land or money the equivalent of 2 *l.* 10 *s.* per annum. At the close of the year under review the regular police force were greatly reduced in strength. The cognisable cases reported to the police rose from 55,043 to 66,897; the number inquired into was 26,810, or 40·07 against 37·40—a small proportion, which is accounted for by the large number of petty thefts (37,609 out of 59,971), which are not followed up unless reported by the plaintiff in person at the police station. The per-centage of conviction to trials, however, which is after all the real test of police work, was no less than 80·46 per cent. Police.

OUDH.

Military. At a total cost of 260,546 *l.* a force of 8,016 officers, non-commissioned officers, and men was maintained in Oudh.

Public Works. There is little that calls for remark in the chapter devoted to public works. Good progress was made in the preliminary work connected with the great Sardah Canal scheme, which, when completed, will include 1,148 miles of main canal, 4,230 miles of minor channels, and provide irrigation for over 12 million acres. Considerable progress was made under the head of "communications," 858 miles of new road having been constructed at a cost of 5,825 *l.* The expenditure from local and municipal funds was 54,355 *l.*

Agriculture. The great staples of the province are wheat and other food grains. Cotton cultivation has never taken a firm hold, and seems on the decline, only about 26,000 acres having been sown with it in the year under review. For opium there is indefinite room; tobacco thrives, but the people require good seed, and the secret of preparing it; fibres are undeveloped.

	Acres.
Rice - - - -	1,331,396
Wheat - - - -	1,775,119
Other food grains - -	4,594,990

Stock. The cattle are, as a rule, inferior, though the breed of buffaloes is fine. Rinderpest appeared during the year, and carried off large numbers. The quantity of horses is small, and few are bred. The ordinary rate for skilled labour appears to be 6 *d.* a-day; for unskilled, 3 *d.* a-day. "That life can be supported on so small a sum, shows alike the fertility of the country, the temptation to the population to increase, and the cruel inequalities in the distribution of wealth."

Cows and bullocks - -	3,065,449
Sheep and goats - -	804,492

Labour.

Re-opening of salt works. During the year the experiment was made of re-opening the salt works that formerly existed in this province, with the triple object of saving to the population the cost of carriage from distant sources, of encouraging an important manufacture in their own territory, now almost monopolised by the subjects of native States, and of rendering their supplies of this necessary of life as far as possible independent of any action on the part of the rulers of those States. Should the native manufacturers come forward, an annual out-turn of not less than 240,000 maunds is anticipated; but it is expected that the revival of the manufacture will be a work of time.

Charitable Institutions. There are 23 dispensaries in the province supported by Government, besides 13 charitable institutions of other kinds.

Education. Gov[t] schools, 640. Aided schools, 77. The total number of schools rose from 642 to 717; the average attendance from 22,551 to 26,603; and the expenditure from 41,103 *l.* to 43,765 *l.*, of which 23,211 *l.* was derived from Imperial revenue, 11,812 *l.* from the educational cess, and the remainder from other sources. Canning College at Lucknow was founded in 1864 in memory of Lord Canning, and is supported partly by the liberality of the talukdárs, partly by a yearly grant-in-aid of 2,500 *l.* The college is working well. Speaking of village school education, Mr. Thomson, Inspector of Schools, says: "A boy entering school at six years of age will finish the course thoroughly by the time he is 10 or 11, and he will then be well qualified, as far as school learning goes, to manage his business, whether as farmer, merchant, or clerk. A boy who has finished the village school course has also laid a sound foundation for either a higher vernacular or an English education." Though there may be room for improvement in details, he considers that the grand outlines of the scheme in question are as good as they can be made for some time. The Lucknow normal school for masters is working well. Out of 184 students, there was an average daily attendance of 181. The normal school for mistresses had an average attendance of 16. Though the number of boys of a school-going age is about 933,000, and the number who do attend is 25,438 only, or 1 in 36, it is some consolation to learn that the schools are four times, and the pupils three times, as numerous as they were in 1865–66, and that as regards village schools the increase in pupils has been more than tenfold. The total expenditure during the same period has risen from 21,130 *l.* to 43,765.

Scientific and Literary. It is worthy of record that Lucknow and Seetapore have each started a native reform club, and that their example has been recently followed by Gondah. Lucknow has 20 presses, of which 17 are devoted to printing in the vernacular. The museum becomes increasingly popular, and was visited by 138,504 persons.

On

On notice being given, native families can visit the museum in strict privacy; a convenient arrangement of which many avail themselves. Oudh.

The year was one of difficulty to the municipalities of Oudh, owing to the Government resolution that octroi should not be levied on articles which have paid customs duty; and the fresh taxes which had to be imposed did not in all cases meet the expenditure. In Lucknow especially this was the case. There appear to have been 12 towns in the Province in which the Municipal Act of 1867 was is in force, and the movement is said to be extending. Municipalities.

The figures in the margin give the estimated value of the trade of the Province and show that the exports exceeded the imports in value by 281,419*l*. The principal exports are, of course, agricultural produce. Of grain of all kinds 4,973,910 maunds were sent out of the Province; of oil seeds 2,369,681 maunds. The imports of cotton amounted to 312,031 maunds against 43,795 maunds exported. Trade.

	£.
Exports	2,826,621
Imports	2,545,202

Of 37 estates managed by the court of wards during the year, 25 were held on trust for minors and 12 were encumbered estates, taken in charge on the express application of the talukdár himself, and on his executing a deed making over the estate to Government The annual increase in the number of these estates testifies conclusively to the fact that Government management is highly appreciated. Court of Wards.

The figures in the following statements of the receipts and expenditure of the Province call for no comment. Finance.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Land Revenue	1,309,519	54,260	—
Forest	10,682	—	2,500
Excise on Spirits and Drugs	79,348	—	12,451
Assessed Taxes	27,829	20,759	—
Salt	1,219	103	—
Stamps	83,405	5,948	—
Law and Justice	14,881	1,226	—
Police	15,762	2,764	—
Education	1,017	307	—
Interest	1,944	1,944	—
Miscellaneous	3,425	2,060	—
Public Works, Miscellaneous	1,654	82	—
Irrigation	16	16	—
£.	1,550,701	89,469	14,951
		Net Increase, £. 74,518.	

EXPENDITURE.	1869 70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Refunds, &c.	9,036	3,787	—
Land Revenue	131,992	—	6,522
Forest	10,527	1,609	—
Excise on Spirits and Drugs	5,176	—	5,097
Assessed Taxes	891	879	—
Salt	6,812	1,161	—
Stamps	4,262	179	—
Allowances, &c. under Treaties	72,663	—	6,985
,, to District and Village Officers.	—	—	555
Total Direct Claims on Revenues	241,359	7,615	19,159
Administration	44,497	—	2,101
Law and Justice	88,139	6,580	—
Police	112,586	—	2,613
Education	23,211	1,016	—
Ecclesiastical	3,371	—	482
Medical Services	12,024	487	—
Stationery and Printing	6,791	—	1,023
Miscellaneous	5,825	2.934	—
Pensions, &c.	5,942	757	—
Public Works, Ordinary:			
Public Works	158,766	—	52,866
Supervision, and Cost of Land for Railways.	13,755	10,221	—
Interest on Service Funds, &c.	775	—	495
Public Works, Extraordinary	9,306	2,325	—
	726,347	31,935	78,739
Surplus	824,354		
£.	1,550,701		
		Net Decrease, £. 46,804.	

There was a slight falling off in the receipts derived from local funds, and an increase of about 5,000 *l.* in the expenditure. Local funds.

	£.
Receipts	227,273
Expenditure	162,093
Balance £.	65,180

The Central Provinces.

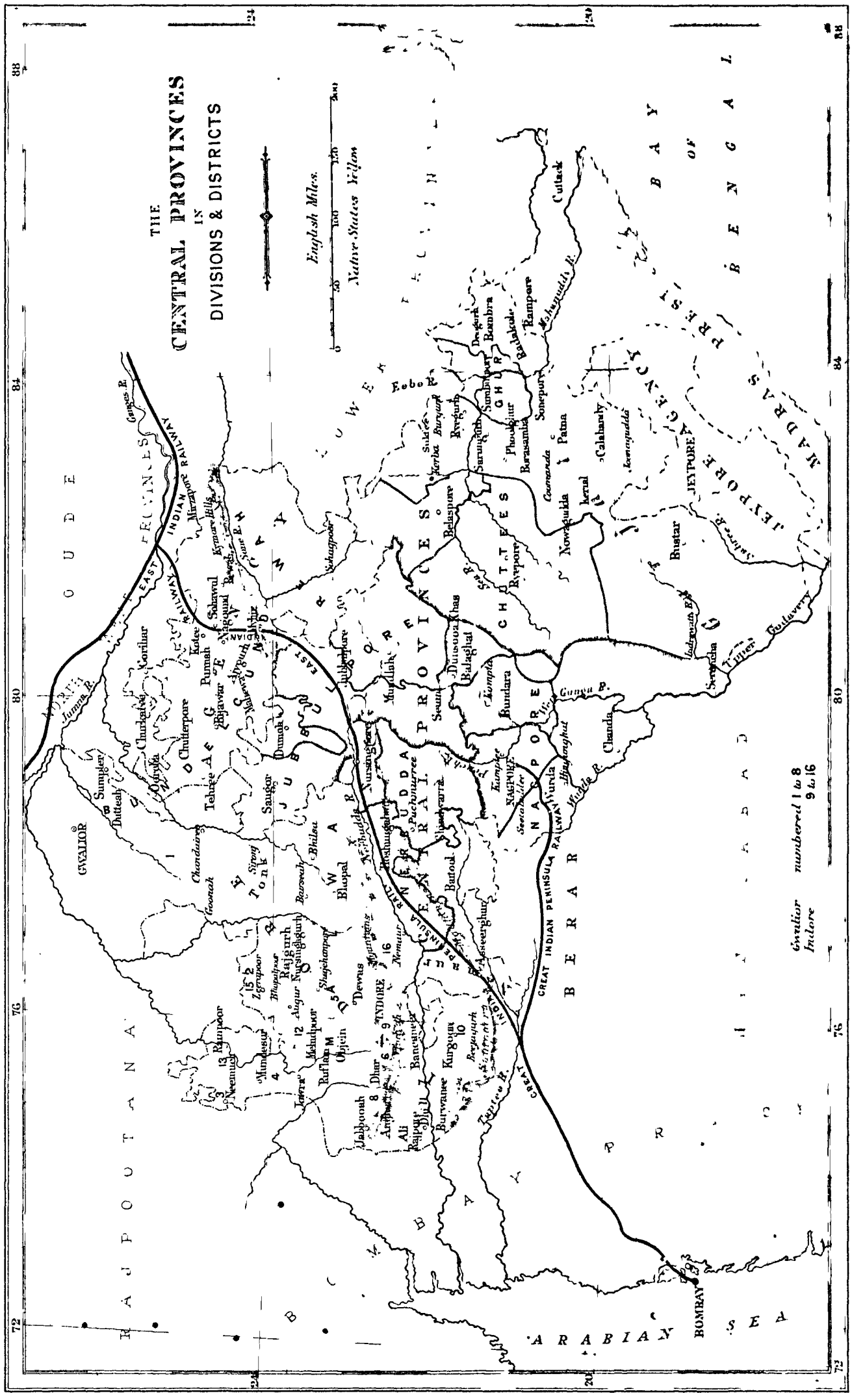
THE CENTRAL PROVINCES.

The Central Provinces form a territory not much smaller in extent than Great Britain and Ireland, with one-third of the population. They became a separate administration in 1861, and are under the authority of a Chief Commissioner. In the accompanying map the Central Provinces comprise the portion coloured red, which is under British government, and a collection of Native States, 15 in number, coloured yellow, which lie along the boundary of the Madras Presidency. On the west of the province are the Nizam's dominions and Berar; on the east is Chota Nagpore, belonging to the Lower Provinces of Bengal, and generally distributed along the northern boundary are a number of Native States included within the Central India Agency.

The British portion of the province is divided into four commissionerships (Jubbulpore, Nerbudda, Nagpore, and Chutteesgurh), into 19 districts, and 58 subdivisions; its area is 82,860 square miles, and its population numbers about 9,068,000 persons. The Native States have an area of 28,261 square miles, and a population numbering 1,100,000 inhabitants.

A very complete Gazetteer of the Central Provinces, founded on an earlier one of Sir Richard Temple's, but so much added to and improved as to form an almost entirely new work, was published last year. Its compilation reflects great credit on Mr. Charles Grant, and the various officers who contributed the chapters on the commissionerships and districts under their charge, and to quote the words of Mr. Morris, under the modest name of a second edition Mr. Grant has in reality produced a subtantially new work.

The severe season chronicled in last year's Report left its legacy of suffering to the one under review. It was in the earlier part of 1869-70 that the distress caused by the previous year's failure of rain all over the province culminated; and as no alleviation came till the ripening of the autumn crop in October, it happened that a year of seasonable rains and good harvests was, for its first six months, one of unexampled suffering to all, and especially to the labouring classes. Yet the events of the year did not pass without bearing fruits which in some degree compensated for the sufferings undergone. In the first place, much light has been thrown on one of the most difficult problems which present themselves in times of scarcity—the amount of the reserve grain supplies of the country. Secondly, it was gratifying to note to how great an extent the public spirit and humanity of the people was called forth. Mr. Morris writes, "Much that was done by natives for their starving brethren never came to the knowledge of public officers; but the more we learned of their work the more we had reason to admire the charity, not without organisation, which they displayed throughout the whole of the crisis of the famine. District officers at last abstained from inviting subscriptions from the bulk of the rural population, not because the response would not have come, but because they felt that the people were doing what they could, and doing it better than any system of Government relief could do it for them." Again, the famine works executed during the year will be of lasting benefit to the country. All over the province bunds were repaired, tanks enlarged, and wells deepened, and the famine led indirectly to the investment of a large amount of capital in permanent agricultural improvements. Lastly, it is pleasing to know that the liberality and provident care shown by the Government were not unappreciated by the people. The native mind is ever prone to look to Government for support and guidance; and as during the famine the people found their expectations realised, so they on their part showed their confidence in our desire and ability to aid them by abstaining from agrarian commotion. The disappearance of distress with the ripening of the Khureef harvest of 1869 was surprisingly sudden. It might have been expected that the inmates of the relief camps, demoralised by the help which had been afforded them, would be for months a burden to Government; on the contrary, on the first indications of food and work being obtainable in the fields the able-bodied disappeared, and the rapidity with which the crowds at the camps melted away falsified all calculations. The season of sickness which invariably follows a season of famine was for a time severely felt. In some localities the whole population seemed


THE
CENTRAL PROVINCES
IN
DIVISIONS & DISTRICTS
English Miles.
Native States Yellow
BAY OF BENGAL
MADRAS PRESIDENCY
JEYPORE AGENCY
BERAR
ARABIAN SEA
BOMBAY
RAJPOOTANA
GWALIOR
Gwalior numbered 1 to 8
Indore 9 to 16

seemed prostrated with fever, and instances occurred in which public offices were for days deserted, officials and suitors being alike unable to attend.

Though the health of the population forms the subject of a separate Blue Book, it may not be out of place here to refer to some remarks made by Mr. Morris in connection with the question of fever. It seems that while cholera is being combated with some measure of success, fever year by year falls on a helpless and unresisting population, and little or nothing has been done to repel it. It appears to be a well-founded opinion that the inferior physical development of the natives of these parts is due more to this cause than to any other; such being the case, this great fever question claims, Mr. Morris considers, our most anxious attention, and he proceeds to direct investigation to the following unexplained subjects of inquiry in these provinces; the comparative prevalence of fever among different castes, particularly among the wild tribes, as compared with other races; the effects of different diets, especially of the use of spirituous liquors and meat, the results of oil, humidity, and of elevation.

The most important event of the year for the Central Provinces certainly, and perhaps for the whole of India, was the completion of the great line of railway connecting Bombay and Western India with the eastern half of the Continent. Speaking of this event in its relation to the Central Provinces alone, it may be said to have been the crowning point to successive stages which have in less than 10 years, that is, since the formation of the separate administration, raised them from the position of a *terra incognita* to that of being one of the most interesting and most important provinces of British India. The opening of the railway to Nagpore in 1862, followed by the Nagpore Exhibition, did much to introduce the western portion of these provinces, the cotton regions of the Wurdah Valley, to Western India and Bombay. In 1868, when the East Indian Railway opened a branch to Jubbulpore, the Central Provinces came fairly before the world, and travellers from the west who had hitherto come no further than Nagpore, were at once able to cross the Continent in preference to taking the longer journey by sea, in order to reach Calcutta; a mail service was at the same time organised for the break of 150 miles between Nagpore and Jubbulpore, a transit service for ordinary passengers, and a military train for troops. Finally, the year 1870 saw the completion of through railway communication. The East Indian and the Great Indian Peninsular lines of railway are connected at Jubbulpore; the branch to Nagpore has ceased to be the great channel of traffic, and that town, now no more than a local capital, must in future rely solely on its own resources. Its northern rival, Jubbulpore, to which it has yielded precedence, placed as it is at the junction of the two railway systems of Hindoostan, is described as being by position the Alexandria of the east and west of India; already some portion of the trade of the North Western Provinces passes through it, and if the Suez Canal attracts to itself the cargoes which now make the voyage of the Cape, the commerce of a large portion of the Ganges, as far south as Mirzapore and Benares, will pass through this city. From March 1870 a continuous stream of traffic began to flow towards Western India, as many as 43,000 maunds of grain and 400 bales of cotton having been dispatched westwards from the Nerbudda Valley markets in the first two months after the completion of the line, while 85,000 maunds of Bombay salt travelled to the towns of the Nerbudda and Jubbulpore country. By contrasting this with the former state of things,—wide stretches of roadless country between the grain producers and the grain markets, and salt carried over long distances on pack bullocks, some idea may be formed of the gain to commerce brought about by the opening of the railway to Jubbulpore. The Nerbudda Valley has now all that it needs in the way of communications; in the central plateau of the Sautpooras the road lines of provincial importance are completed, or in progress; in the west the cotton country up to Nagpore is opened out by the Nagpore branch; but there still remains unprovided for the south eastern half of the Central Provinces, and in particular the great grain country of Chutteesgurh. The future prosperity of Chutteesgurh is known to be dependent on improved communications; but it is not so generally perceived that the development of the cotton production of the Nagpore province depends on its being brought into communication with a grain-producing region, and thus being able to devote a larger acreage to the growth of the cotton plant. Already the traffic on the imperfect road between Raepore and Nagpore is enormous, as many as 2,082 carts having passed in eight days from west to

THE CENTRAL PROVINCES.

east, and 3,987 carts from east to west, besides some hundreds of pack bullocks. A scheme for the construction of a light railway between Raepore and Nagpore has been prepared, and submitted to the Supreme Government.

Passing to another important element in the prosperity of the Province, the existence of minerals, we learn that, though only a small part of the possible coal-bearing area had been proved, the Chanda coal field alone would suffice for the wants of that part of India for centuries, and that the existence of workable iron within a few miles of the Chanda coal field, largely added to its value. The importance of connecting the Chanda field with the Great Indian Peninsula line of railway was fully recognised, and for the accomplishments of that object surveys had already been commenced.

Material progress is accompanied by an awakening of intellectual life among the people, notwithstanding that they labour under two disadvantages; one of which is their heterogeneous origin, and consequent want of a national literature; the other is the absence of any great centres of religious feeling, like Benares or Lahore, which are also centres of learning. State education shows a steady advance, and becomes every year more self-supporting.

A few words should be said regarding municipal taxation, which was raised chiefly by means of an octroi duty on goods entering the towns for consumption and sale there, and was consequently very seriously affected by the orders of the Government of India, that after the close of 1868 goods which had paid sea customs should not pay octroi also. After some consideration the Pandhari tax was made the means of reimbursing the municipalities. This impost is peculiar to the Central Provinces, and is levied on all non-agriculturalists, who, owing to the smallness of their incomes, do not fall within the scope of the income tax; half of it had been hitherto devoted to local objects, and the remainder retained by the Government. The Chief Commissioner is now empowered to make over to the municipal towns the Government share of the tax levied within their limits, provided some other form of municipal taxation exists at the same time, a proviso intended to ensure that the rich shall contribute as well as the poor. He has also discretionary power to make a larger grant on good cause being shown. A considerable portion of the balance is assigned to each district for local purposes, and the remainder is spent on objects of provincial importance. This arrangement was to hold good for a year.

The Central Provinces will soon possess a sanitarium in Puchmurree, a village occupying a plateau on the Sautpoora range of hills, about 56 miles S. E. of Hoshungabad on the Great Indian Peninsular Railway.

Judicial.

Civil Justice.—There were 95 courts exercising civil jurisdiction, besides six small cause courts. The increase in the amount of litigation in this province is remarkable, the number of civil suits having risen in seven years (1862–1869) from 24,666 to 63,137.

Judicial Commissioner - -	1
Commissioner - - - -	4
Deputy Commissioner - -	19
Assistant Commissioner - -	24
Tehseeldar - - - -	38
Nail Tehseeldar- - - -	9
	95

The results of the year under review were much the same as in 1868. The average value of the suits was 12*s.* 6*d.*; 79 per cent. were uncontested; of the remainder, 16 per cent. were decided in whole or in part for the plaintiff; 89 per cent. of all the claims were for money due on contract. The appeals rose from 1,260 to 1,660, and were successful to the extent of about one in three.

Criminal Justice.—There was a large increase in the aggregate of crime during the year, but not greater than might have been expected in a season of such universal distress. That this increase was due solely to the famine, is proved by the fact that it was confined to offences against property, while in heinous crime there was, if anything, rather less to record; 53,183 persons were brought before the magistrates, of whom 11,808 were discharged without trial, 5,729 were acquitted, and 34,800 were convicted. Of 1,280 appeals preferred during the year, 1,130 were admissible, and 40 per cent. of these were modified or reversed by the appellate courts.

	Reported Offences.		
—	Cognisable.	Non-cognisable.	Total.
1868 -	22,370	13,398	35,768
1869 -	34,190	11,708	45,904

Native honorary Magistrates.

The services rendered by native honorary magistrates in the administration of criminal justice, are spoken of with much appreciation. These gentlemen are either landholders, merchants, or bankers-chief. The first appointment is eagerly sought by them, and it is very rarely that those to whom it is awarded are accused of abusing their powers. Their number at the beginning of last year was 112, and they disposed of rather more than one-fifth of the persons brought up for trial.

The

The absence of agrarian commotion and lawlessness, under conditions generally conducive to them, speaks well for the contented and peaceable nature of the people. The increase in petty thefts was accompanied by no feeling of general insecurity; there were no signs of combined or organised crime, and the authority of the police was respected; 34,199 offences were reported during the year. Of the 30,821 persons arrested, nearly 89 per cent. were sent up for trial; and of these about 86 per cent. were convicted or committed. THE CENTRAL PROVINCES

The police force at the close of 1869 numbered 8,495 men, and was partly maintained by local funds. The men are praised for their conduct, and they seem to work well with the landholders. Police.

The number of prisoners confined during the year in the 18 gaols of the province was 30 per cent. more than in 1868, the numbers being 17,747 and 13,695 respectively; but at the close of the year a smaller number remained than at the end of 1868. The net expenditure for the year, after deducting the value of the prisoners' manufactures (6,500 *l.*), was 21,286 *l.*, or at the rate of 5 *l.* 10 *s.* 7 *d.* per man. The high death-rate (6·44 per cent., or more than double that of 1868) must not be attributed to the unfavourable conditions of gaol life. On the contrary, in many gaols there were no deaths from cholera when the disease was in the surrounding districts. It must rather be attributed to the prevalent epidemics, and to disease contracted by bad and insufficient food before the prisoners entered the gaol. The Jubbulpore School of Industry maintains its reputation. Besides affording occupation to Thug prisoners and their children, which was its original design, it answers many of the purposes of a school of artisans. Gaols.

By the diversion of the salt traffic, already alluded to, imports paid duty on crossing the customs line at Agra, instead of as formerly at Saugor, and there was a consequent loss to the revenues of the Central Provinces of 27,645 *l.*, which more than neutralised the increased receipts which followed the substitution of an income tax of 2 per cent. for the license tax of 1 per cent. But for this provincial (but not Imperial) loss, the revenue of the year would, with the increased receipts under forests and stamps, have been larger instead of smaller than in 1868-69. Finance.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69.	
		Increase.	Decrease.
	£.	£.	£.
Land Revenue	591,497	-	9,624
Tributes, &c. from Native States	2,018	2,018	—
Forest	41,602	6,548	—
Excise on Spirits and Drugs	92,940	-	3,206
Assessed Taxes	56,597	18,639	—
Customs	6,772	-	1,711
Salt	115,163	-	27,645
Opium	167	-	218
Stamps	87,888	4,328	—
Law and Justice	24,731	-	11,055
Police	14,161	-	663
Education	89	89	—
Interest	556	412	—
Miscellaneous	4,705	-	3,940
Public Works, Miscellaneous	5,068	-	4,533
£.	1,043,954	32,034	62,595
		Net Decrease, £. 30,561.	

EXPENDITURE.	1869-70.	Compared with 1868-69.	
		Increase.	Decrease.
	£.	£.	£.
Refunds and Drawbacks	19,790	9,732	—
Land Revenue	97,442	-	21,326
Forest	47,425	15,901	—
Excise on Spirits and Drugs	4,886	-	2,233
Assessed Taxes	99	-	237
Salt	49,572	4,090	—
Stamps	2,937	101	—
Allowances and Assignments under Treaties, &c.	70,417	-	23,520
Total, Direct Claims and Demands on Revenues	292,568	29,824	47,316
Administration	45,480	216	—
Law and Justice	97,623	2,881	—
Police	137,368	-	99
Education, Science and Art	26,271	1,717	—
Ecclesiastical	3,569	-	283
Medical Services	20,131	91	—
Stationery and Printing	3,807	1,438	—
Political Agencies	525	249	—
Miscellaneous	12,617	5,312	—
Pensions, &c.	12,820	987	—
Public Works — Public Works	333,725	-	192,133
Public Works — Supervision and Cost of Land for Railways	601	-	467
Interest on Service Funds, &c.	-	-	968
	987,105	42,715	241,266
Surplus	56,849		
£.	1,043,954		
		Net Decrease, £. 198,551.	

THE CENTRAL PROVINCES.

Land.

The land tax continues to be a progressive source of revenue in these provinces. In the year under review, the Government demand, owing to the completion of settlements, made an advance of 10,000 *l.* on 1868-69, and amounted to 602,267 *l.* The tax is paid in two instalments, in June and January. The first instalment was paid with difficulty, but the more bountiful harvests of the autumn of 1869-70 enabled the land-holding classes to meet their liabilities on account of the second instalment nearly in full.

Customs.

The falling off in the Customs amounted in 1868-69 to 25,053 *l.*, and in 1869-70 to as much as 29,356 *l.* The cause of this serious diminution in one branch of revenue was, as was last year explained, the complete breakdown of the bullock traffic between the salt sources in Rajpootana and the northern district of the Central Provinces, owing to the severe drought. The loss, however, is a loss to the province only, and does not appear on the Imperial balance sheet; the salt which formerly crossed the customs line inward at Saugor and Hoshungabad, now comes from the Panjáb and North West Provinces, and paying duty at Agra is brought to Jubbulpore by the East Indian Railway. It is possible that this diversion of the trade may continue, and that as the railway can bring salt from a greater distance at a smaller cost than the bullock train, the Panjáb salt, inferior though it is, may supplant that formerly used. Indeed, the expectation has already justified a reduction in the cost of the preventive establishments on the Saugor line.

While the northern railways have thus attracted to themselves two-thirds of a long-established pack bullock traffic, amounting to some 10,000 tons yearly, the railway from Bombay enables traders at the terminus at Nagpore to enlarge their imports, and supply with salt wide areas of country hitherto dependent on the pack-bullock traffic from the Madras Coast. Western Coast imported salt rose from 17,000 to 20,000 tons, while that from the Eastern Coast fell from 4,823 tons to 3,964 tons.

Sugar.

As the salt supply of the Central Provinces has been for many years met from the Native States of Rajpootana and Central India, so these States have derived their sugar from the Central Provinces; and the same cause which has affected the one has affected the other. Mirzapore sugar was weighted with the cost of transport by pack-bullocks over long distances from Jubbulpore, in addition to the export duty of one rupee per maund (80 lbs.), while the railway from Bombay now enables traders to meet the wants of the Central India markets with a cheaper sugar, free also of inland duty.

Abkaree.

The Abkaree revenue, or that derived from spirits and drugs, yielded 3,200*l.* less than in 1868-69. A considerable diminution of the *mowa* crop, from which the ordinary country liquor is distilled, and the consumption of a large proportion of the produce as food during the period of distress, reduced the demand from

Opium.

73,258 *l.* in 1868-69 to 67,262 *l.* in 1869-70. The opium revenue, which is raised by an excise on the monopoly to sell the drug, increased from 23,000 *l.* to 27,000 *l.* Fewer licenses to cultivate opium were taken out, and the cultivation appears to be languishing under a system which does not encourage it, while it

Stamps.

permits foreign opium to be imported free of duty. The prosecutions for breaches of the Stamp Law are becoming fewer, as its provisions become more generally

Pandhári tax.

known and understood. The Pandhári tax is levied on non-agriculturists in receipt of incomes between 7 *l.* 10 *s.* and 50 *l.* As this class suffered from the high prices of food more severely even than the cultivators, the yield from this tax was about 2,400 *l.* less than in 1868-69. The sanction of Government to the appropriation of the whole of the income from Pandhári to municipal purposes, to compensate for the loss occasioned by the exclusion of goods which have paid the sea customs from the payment of octroi, has been already noticed in the introduction to this Chapter.

Public Works.

The original Imperial Grant for Public Works for the Central Provinces (470,000 *l.*) was reduced in November 1869 by 72,500 *l.* Of the 347,500 *l.* assigned to public works ordinary and railways, 12,674 *l.* was unspent at the close of the year; while, as no extraordinary irrigation works were undertaken during the year, the whole of the Budget provision under that head lapsed. The total outlay for the year under review was therefore 333,725 *l.* as against 525,858 *l.* in 1868-69. The largest item of expenditure was "Communications," 186,000 *l.*; next came "Military Works," 87,000 *l.*; "Civil Buildings," cost about 23,600 *l.*; "Establishments," 72,623 *l.*; or less than one-fourth the total outlay.

Although

THE CENTRAL PROVINCES.

Irrigation.

Although no "extraordinary" works of irrigation were commenced during the year, the subject continued to occupy the serious attention of the local authorities, and several schemes were completed, and submitted to the Government of India. Experience has proved that the storage system is most suitable for the Central Provinces, where the ordinary flow of its rivers is unable to afford a sufficient and constant supply for the perennial irrigation of any large area, and where, owing to the deep channels of the principal streams, the head works would be so expensive that without a perennial and constant supply a fair return on the outlay could not be expected. The expense of storing water is proved to be inversely in proportion to the extent of the reservoir. The lowest price for works constructed on this principle in England has been 3 *d.* per cubic yard, but in India, where much larger areas are available, it has been as low as one-tenth of a penny per cubic yard. For the Central Provinces a system of tanks would be unsuitable, and would, moreover, prove too costly; to obtain a fair profit on the outlay, the works must be carried out on a grander scale, on rivers having large catchment basins.

Kanhan project.

Of the seven projects more or less complete, it will be sufficient to notice the project for storing a portion of the monsoon flow of the river Kanhan, and irrigating a large tract of country on its right or south-west bank, in the neighbourhood of the city of Nagpore. By throwing across the river at the village of Khappa, a masonry dam of 1,870 feet in length, and with an average height of 98 feet, a reservoir will be formed, spreading water over more than 40 square miles of country, and having a capacity of nearly 20 million cubic feet; from the reservoir will be conducted a main canal to Nagpore and onwards, and a minor canal for the irrigation of the lands north of Kamptee; the total length of the escape weirs will be 13,000 lineal feet; the plan includes two embankments of a total length of 5,705 feet, and an average height of 45 feet.

By this scheme the river flow, which unchecked cannot satisfy all demands upon it for more than 100 days, that is during the rains, will be husbanded, and prove amply sufficient for 221 days longer. It is expected, moreover, that a good trade will in a short time spring up along the main canal which is designed to facilitate navigation, and will be the means of transporting the produce of the country to the railway terminus at Nagpore.

The entire cost of the undertaking, reservoir and distributary channels, is estimated at about 720,000 *l.*, and this sum will provide a perennial supply of 1,344 cubic feet per second at an average cost of 534 *l.* per foot. Supposing the charge for the water to be at the rate of 6 *s.* per acre per annum, the revenue it is estimated will be 11¼ per cent. on this outlay, when three-fifths of the gross area of 448,000 acres commanded by the distributary channels shall have been brought under irrigation.

Communications.

The large sum spent upon communications shows that this branch of Public Works is not being overlooked. The Central Provinces have the benefit of the main lines of communication between Eastern and Western India passing through their midst, but much remains to be done before the network of feeders to them can be said to be complete. The dearth of water along the eastern road, that which connects the Chutteesgurh country with Nagpore, made it necessary to sink wells along the route before the metalling operations, which are absolutely necessary to enable it to bear the heavy traffic, could be commenced.

Education.

In a year of sickness and agricultural distress, it was natural that the progress of education should receive a check. For a time a good many schools were closed; some because the parents could not spare them, others because the schoolmasters themselves were carried off by cholera, or because the persons whose support enabled the schools to be kept open withdrew their support on the death of their children or young relatives in whom they had been interested. In other places, though the schools were not closed, they became gradually deserted, and the schoolmasters lost interest in their work. In time, however, things began to amend, and the year closed with a larger number of both schools and scholars than had ever been attained before. It will be noticed that the average attendance is small in proportion to the number of names on the school books. The reason is, that within the last few years, the cost of living has increased so greatly in parts of the Central Provinces, that the people

	1868–69.	1869–70.
Schools - - -	1,694	1,864
Scholars - - -	72,835	77,798
Average daily attendance.	44,480	47,986

THE CENTRAL PROVINCES.

people say they absolutely require the assistance of their children to enable them to eke out their living, and, consequently, withdraw them frequently to put them to work in the fields, or in some manner suited to their years and strength. To exclude those who are often absent would be practically to close the schools; so until prices fall, the efforts of the district officers must be directed to inducing those to come who can.

The total expenditure was 49,076 *l.*, of which, 26,271 *l.* came from Imperial revenues; the remainder was derived from the proceeds of the educational cess of 2 per cent. of the land revenue, which realised 13,557 *l.*, and from municipal and local funds. Of this expenditure 15 per cent. went to direction, 9·7 to high-class, 23·3 to the middle class, and 40·5 to the lower class schools, and the rest, 11·5 per cent., to the girls' schools, the training of masters and mistresses, and scholarships.

There were 134 girls' schools, with 4,579 names on the books and an average daily attendance of 2,379 pupils. Little progress will be made in female education till the people can be induced to take an interest in the matter. Ninety masters and 12 mistresses completed their training at the Normal school. The cause of education in the provinces is furthered by the existence of five public libraries which are subsidised by Government, three literary and scientific societies, and a museum in which the native community take great interest.

Cotton.

	1868–69.	1869–70.
Acres sown - -	750,875	824,027
Bales exported -	43,394	38,594

The season commenced favourably. An increased area was sown with cotton, and a good crop was confidently expected, but the heavy rain that passed over the country early in October destroyed the ripening plant, and led to a considerable decrease in the exports.

The efforts that are being made to improve the cotton of the country are evidenced by such measures as the establishment of the seed farm at Hingunghat, the appointment of a professional seed gardener from Europe, the experiments that have been undertaken to determine the effect of irrigation and manure on the cotton crop, &c. The railway arrangements for working the traffic were entirely satisfactory, and the company are assisted by the growth of the system of "full pressing," which much lessens the bulk of the cotton. The discovery of coal in the cotton country will, it is hoped, lead to a reduction of the cost of carriage by railway.

Fairs.

Sixty fairs were held during the year, at which 1,118,224 persons were present. The property brought for sale, which was valued at 561,351 *l.*, consisted of English piece goods, country manufactures, and raw produce, horses and cattle.

Agriculture.

	Acres.
Rice - - - - - - -	2,731,135
Wheat - - - - - - -	3,287,765
Other food, grains - - - -	4,707,192
Oil seeds - - - - - - -	737,332
Cotton - - - - - - -	696,595

The principal objects of cultivation are given in the margin. To a smaller extent are cultivated sugar-cane fibres, tobacco, and vegetables, and a very little opium. Compared with 1868-69, there was a decrease under nearly all heads excepting wheat and cotton.

Trade.

	Tons.	*Value.*
Imports - -	151,618	4,086,222
Exports - -	85,426	3,058,243
Total - - -	237,044	7,144,465
1868-69 - -	209,089	6,795,263
Increase - -	27,955	349,202

The statistics of trade, excluding Government stores and railway material, and a large through traffic, show a considerable improvement. The increase was chiefly occasioned by the large imports of grain during the season of famine, and by the unusually large imports of sugar, to which the opening of the line at Jubbulpore has opened a wider market. There was also a revival of the export trade in silk and county cloth. The value of the last sprang from 347,562 *l.* to 904,470 *l.*, and exceeded even that of cotton or European piece goods. The trade had languished ever since the rise in the price of cotton occasioned by the American war, and at one time there seemed no hope of its revival, but the comparative cheapening of the fibre extended cultivation, and the good crop of 1868-69 seems to have given a fresh impetus to the manufacture. On the whole, the transactions of the year were favourable, the net increase being on the side of the exports. The bulk of the trade is still with Western India, and increases steadily. The opening of the railway line from Jubbulpore through the Nerbudda Valley occurred too late in the season to make an appreciable impression on the trade with the North West Provinces and Calcutta.

THE PUNJAB
in
DIVISIONS & DISTRICTS
also
CASHMERE.

English Miles.

0 50 100 150 200

Native States Yellow.

68 72 76 80

36 32 28

AFGHANISTAN
CHINESE EMPIRE
TIBET
NORTH WEST PROVINCES
BELUGHISTAN
SINDE
RAJPOOTANA
CASHMERE
Ladak
Himalaya
Mustag Pass
Karakoram Pass
Changchemmo Pass
Shayok R.
Kurgil
Pongong Lake
Shadula
Iskardo
Shipki
Manasarowar Lake
Sutlej R.
Cabul R.
Muchate Pk.
Khagan
Mordan
Peshawur
Abbotabad
Muzafferabad
Hurripoor
Attock
Islamabad
Srinagur
Leh
Kohat
Rawul Pinde
R. Indus
R. Jhelum
Rajaori
Kishtwar
Ralalacha P.
R. Chenab
JAMOO
Bunnoo
Jhelum
RAWUL PINDE
Gujerat
Sealkote
Chamba
Lahoul
Tandee
Spiti
Dankar
Kangra
Goordaspore
Sultanpore
Kouloo
Tak
Shalpore
Wuzeerabad
AMRITSIR
Gujrut
Walla
Dera Ismael Kahn
Draband
Bowannee
LAHORE
Amritsir
Hoshiarpur
Mundi
Sukhet
Rampoor
Shipki
Dera Futteh Khan
Jhung
Kapoorthella
Jullinder
Belaspoor
Simla
Sutlej
Ferozpore
Loodiana
Googaira
Puteedkote
Sirmour
Nahun
Narpah
Putteeala
Umballa
Thunesir
Vidore
Dera Ghazee Khan
Sukkur Sarwar Pass
Mooltan
Mozuffergurh
Bhuttiana
Sirsa
Koornal
Baluwulpore
Hissar
Delhi
Mithankot
Kasmar
Loharoo
Beekaneer
Sukkar
Muttra
Bulubgurh
Sulliman Mountains
Simla Hills
Sirmour Hills
Chenee Hills
Dhurmsala
Nahun
Kangra
Rohtuck
Jhujhur
Dadree
Goorgaon
Pattoudee
Sutlej
R. Ravee
R. Chenab
R. Ghara
R. Jumna
PUNJAB
DOAB
Sind Sagur Doab
Jhelum Doab
Bare Doab
Rechna Doab
Jullundur Doab
Delhi Doab
Sirhind Canal
Western Jumna Canal
Eastern Jumna Canal
Hurrial
Kurnal
Delhi
Sirsa
Bhuttiana
Rohtuck
Jhujhur
Dadree
Goorgaon
Pattoudee

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The territories under the Government of the Punjab and its dependencies include all British India north of the province of Sind, Rájpootána, and the North Western Provinces, which lies between the River Jumna on the east, and the Sulemáni Hills on the west. The extreme length is about 800 miles, and the extreme width about 650 miles. The total area included within these limits is as large as France, that is to say, it is over 200,000 square miles in extent, more than half of which is the territory of feudatories. The British possessions in the province are about as large as the kingdom of Italy. Their area is returned as 102,001 square miles, of which 31,513 square miles, or less than one-third, are cultivated; 25,333 square miles, or about one-fourth, are culturable, and the remainder is unculturable waste. The water communication is returned as 2,902 miles, and the length of roads, metalled and unmetalled, as 19,852 miles. The length of railway communication open within the province at the end of the year was 412 miles.

The Punjab and its dependencies were constituted a Lieutenant Governorship in January 1859. It is divided for administrative purposes into 10 divisions, with an average area of 10,200 square miles; these comprise 32 districts, with an average area of 3,188 square miles, which are again sub-divided into 132 tahsíls, or revenue and judicial sub-divisions, with an average area of 772 square miles. There are 451 magistrates of all grades, most of them exercising civil and revenue powers, and 15,218 police, to a population of upwards of 17½ millions. There are 34,462 villages, at an average distance of 14 miles from the nearest court. The principal towns of the province, with their population, are given in the margin. The revenue derived from the land-tax in 1869-70 was close on two millions sterling, and the gross revenue from all sources was 3,792,211 *l.*

	Population.
Delhi -	154,417
Amritsar -	135,818
Lahore -	98,924
Peshâwar	58,555
Multan -	56,826

Owing to the unseasonable rainfall, and the more than usually oppressive heat of the year 1869-70, the yield of the harvest was greatly below the average and the scarcity and drought which prevailed in 1868-69 continued with increased severity. Happily, copious rain fell in September, and though thousands of cattle perished, thanks to the exertions of the district officers, and the co-operation of the wealthier classes, the people were saved from death, and the losses of the agriculturists are being rapidly repaired by loans granted by the State without demand of interest. Famine was, as usual, attended with pestilence. Small-pox carried off 53,195 victims; 9,258 died from cholera, while it is calculated that no less than 272,946 lives were lost by the malignant fever which prostrated the population at the close of 1869.

Notwithstanding these adverse circumstances, the revenue increased from 3,434,015 *l.* to 3,792,211 *l.*, while the charges of the Civil administration were reduced from 1,879,996 *l.* to 1,839,919 *l.*, leaving a net surplus of 1,949,588 *l.* available for the general purposes of the Empire, an increase of 394,809 *l.* as compared with 1868-69. The total value of imports and exports rose from 5,268,522 *l.* to 5,487,583 *l.*, and the value of the out-turn of manufactures from 3,773,300 *l.* to 3,842,500 *l.*

Native States.

The Native States with which the Government of the Punjab has political relations are of two classes: 1st. *Dependent and Feudatory States.* 2nd. *Independent States*, including frontier tribes. The Feudatory States attached to the Punjab are 34 in number, and their area amounts approximately to 104,000 square miles; their population to about five millions; their revenues to about 1,600,000 *l.* per annum; their military forces (exclusive of mere armed retainers) to about 50,000 men, and the total tribute received from them to 28,000 *l.* per annum. The chiefs are guaranteed full and unreserved possession of their territories, and in return are bound to execute justice, and promote the welfare of their subjects; to prevent suttee, slavery, and female infanticide; to co-operate with the British Government against an enemy; to furnish supplies, and to grant free of expense, land required for railroads and Imperial lines of road. The chiefs of Kashmír, Patiála, Bhâwalpore, Jínd, and Nabha have full power of life and death over their subjects, and are exempt from inquiry into com-

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plaints made against them, privileges that are not extended to the remaining feudatories. The same five States, with Kapúrthulla, have between them more than 48,000 troops.

Bháwalpore.

Three of the States, Bháwalpore, Chamba and Pataodi are under the management of British officers. The first State was taken over in 1866, at the request of the leading men, owing to the anarchy that followed the death of the late chief, and the minority of his successor. The country has prospered, and the people are contented, and whereas at the time the State came under British management, the treasury was empty, the Government in debt, the army disorganised, the canals, on which cultivation mainly depends, neglected, there was at the close of the year under review, a balance of 80,000 *l.* in hand; the State debts had been paid off, the revenue had reached 200,000 *l.* per annum (or double what it was three years before), while the ordinary expenditure is 160,000 *l.*, so that it is calculated 50,000 *l.* per annum may be spent on canals and other remunerative public works, and by the time the young nawáb comes of age, the annual income will have risen to 300,000 *l.* The army has been reorganised and reduced, large areas of waste lands have been brought under cultivation, and the population has greatly increased from immigration.

Chamba.

Chamba is managed by a British officer at the chief's own request. The income of the State (17,300 *l.*) has nearly doubled since the first superintendent was appointed. During the year under review, after providing for ordinary expenditure, 3,000 *l.* was available for public works; good progress was made in the construction of roads and bridges; and the schools and dispensaries continue to thrive. Efforts are being made to abolish bigári or forced labour, a work of time and difficulty, for the population being an agricultural one, voluntary labour is at certain seasons difficult to procure, added to which, the present system has prevailed from time immemorial.

Kashmír.

Of the Feudatory States not under the management of British officers, by far the largest and most important is Kashmír. The present ruler is the Maharaja Ranbír Singh, son of Golab Singh, who commenced his career as a horseman in the service of Maharaja Ranjít Singh, the energetic ruler of the Punjab. His dominions may be described as the Hill country, and its dependencies between the Indus and the Ravi, excluding Chamba and Lahoul. The area of the country is 25,000 square miles. The population is estimated at a million and a half; the gross revenue of the State is supposed to be 640,000 *l.*, and the organised military force is believed to amount to about 31,383 men.

Trade routes.

During the year a commercial treaty was negotiated with the Maharaja, who engages to abolish all transit duties on goods passing between Eastern Turkistan and British India, and consents to the appointment of joint commissioners, with power to arrange for the convenience of travellers on trade routes, and settle disputes; in return for which the British Government agrees to abolish the export duty on Kashmír shawls, and to refund the Customs duty levied on all goods imported from British territory into Kashmír, whether for use in Kashmír or re-export to Eastern Turkistan. When the year closed, it was too early to judge of the effects of the treaty upon the trade with Eastern Turkistan, but it was reported that a far larger consignment than usual was on its way from Yárkand, and that the traders were much pleased with the arrangements made.

Patiála.

The young Maharaja of Patiála was during the year invested with sovereign powers. He gives promise of being an enlightened ruler, and has already shown himself eminently liberal in the cause of education. The Raja of Kapúrthulla died on the 2nd April 1870, while carrying out his long-cherished desire of visiting England. He had been a faithful ally during the Mutiny, and, in the words of the Resolution published by the Government of India on his death, "The British Government has lost in him an attached and valued friend, and a chief who, by a vigorous and progressive administration, set an example to other native rulers. The valuable services which he rendered to the British Government in time of trouble and of danger will not be forgotten."

The late Raja was succeeded by his eldest son, Kharrak Singh, aged 23 years. He has decided to devote to the foundation of a college the sum of 12,500 *l.*, subscribed by the people of Kapúrthulla, for the purpose of founding a memorial to their late chief.

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The relations between the Amír of Cábul and the British Government were throughout the year of the most friendly character. His Highness has kept the Government informed of political events in his territory, and has sought and deferred to its advice in regulating his conduct towards foreign States. The extravagant allowances of the nobles have been reduced; cash payment of land revenue substituted for payment in grain; regular regiments substituted for irregular levies, and the pay of the troops issued in cash instead of by cheques or billets. A regular post has been established between Cábul and Peshawur; a council of state of 15 members has been organised, with power to dispose of ordinary business, matters of importance, and cases where the members disagree in opinion being referred for the Amír's decision. The book of "Manual and Platoon Exercises" has been translated into Pushtú; and lastly, an edict has been issued to the shoemakers to make shoes henceforth on the European pattern only. Some of these measures have tended to make the Amír's government unpopular, especially among the higher classes; but his authority during the year remained unshaken. Affghanistan.

The tribes which inhabit the British frontier from Hazara on the north, to Sind on the south-west, belong to two distinct races; from Hazara to Dera Ismail Khan, they are chiefly Patán; from Dera Ismail Khan to the borders of Sind they are, with one exception, Biloch. Both races are warlike, revengeful, and predatory, but while the Patán is essentially republican, having little reverence for the person of his chief, the Biloch respects and obeys the chief of his clan; while the Patán is bigotted and priest ridden, the Biloch pays scant respect to the Syad or Maulavi. To conciliate a Biloch chief is, in most cases, to conciliate the whole clan; but the Patán chief is generally head of a dominant faction only, and friendship with his faction may be enmity with the rest; while priestly influence is at work to undo, perhaps in a few hours, the conciliatory policy of years. The two races are split up into very numerous tribes; the number of their fighting men is estimated at no less than 130,000, a formidable force indeed if it were possible to conceive the various tribes healing their own dissensions and uniting against a common enemy. Frontier tribes.

The question of our relations with the frontier tribes is so interesting, while at the same time so little is generally known about it by those who find fault with the policy of the British Government, that we are glad to find the subject dealt with at some length in the Report for the year. The writer says, "The policy pursued by the British Government towards these wild tribes has been, since annexation, a policy of conciliation backed by power. While a strong military power has been organised for the defence and pacification of the frontier, it is a standing instruction to officers, civil and military, to cultivate friendly relations with the tribes, and in the event of hostilities, to act, in the first instance, purely on the defensive, and to strive to conciliate and reason into submission before resort to coercive measures; but there are limits to forbearance, and it is essential for the maintenance of peace and the protection of the border, that a sense of our generosity should be mingled with respect of our power and fear of our displeasure; and while peaceful relations are the rule, plundering and murderous raids committed against our subjects *must* be severely punished. Unfortunately, while every measure of chastisement is known through the length and breadth of India and of England, our moderation, our systematic measures of conciliation, and the philanthropic efforts of our frontier civil officers to create a friendly feeling in the minds of the border tribes, are known to but a few. The result is, that while the policy of the Government is condemned by the military residents of the frontier as too lenient, it is condemned by those at a distance as too severe; in reality, it aims at a just medium between weakness and severity. Under these circumstances, it will not be out of place to review briefly the measures of conciliation which have been, and are being adopted towards these tribes."

"One of the first measures of the Board of Administration of the Punjab after annexation was to encourage and facilitate commercial intercourse between border tribes and the inhabitants of British territory, and with this view all frontier Customs duties were abolished; and to this day no toll or duty of any kind is levied on men, animals, or goods crossing the British border. Two

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annual fairs are held for the interchange of commodities, one at Sukhi Sarwar in the Dera Gházi Khan district, and one (recently established) at Pesháwar. Roads have been made connecting the frontier passes with the nearest commercial towns; steam communication has been established on the Upper Indus; and Povindah traders are beginning freely to avail themselves of it in transporting their goods to Karachi and Bombay."

Dispensaries and hospitals are established along the frontier, at which men of all classes, tribes, and creeds are treated and fed at the public expense. *Thousands* of the patients annually treated are men from beyond the frontier, some of whom travel scores of miles, from Cabul, from Badakshán and elsewhere, to seek medical advice or to undergo an operation; while such is their confidence in our generosity, that at the time of the Ambeyla conflict, not a few of the patients in the Mardán dispensary were suffering from bullet wounds received in action with our troops. Then the chiefs of independent tribes are encouraged freely to visit British territory and during such visits are treated as guests and hospitably entertained at the public expense; and much of the frontier district officers' time is taken up in showing attention to these deputations, in hearing their representations, and amicably settling their disputes. Waste lands are offered freely to the tribes on liberal terms, and at the present time considerable colonies of Hill men are settled down as peaceful cultivators in British territory. The land tax on holdings of independent tribes in British territory has been reduced to a nominal sum; the capitation tax formerly levied by the Sikh Government has been abolished, and all allowances made by our predecessors to frontier chiefs have been scrupulously maintained. Handsome rewards are offered to frontier officers who may obtain a colloquial knowledge of the Pathán language; and native Pathans are educated free of expense in the Lahore Medical School for service on the frontier.

The ranks of our army, and police, and civil establishments are largely recruited from the frontier tribes and one of the ablest of the native surveyors in the Punjab Revenue-Survey is a member of one of the most predatory of the tribes of the north west frontier. Lastly, a militia force for frontier defence, consisting of 371 horsemen and 197 foot, is recruited to a great extent from the frontier tribes; the men being placed in charge of minor outposts, and used as guides for procuring intelligence for the officers commanding at the larger outposts.

The writer concludes, "What, then, it may be asked, has been the result of this policy? Have our relations with the frontier tribes improved; is the border more peaceable; and are there signs of greater confidence in the power and justice of the British Government? To these questions, a reply may be given most decidedly in the affirmative. We have not indeed, succeeded in changing the savage nature of these tribes; the Pathán and the Biloch are still warlike, revengeful, and predatory. Our relations with them are not always of an amiable character, and raids have not altogether ceased; but a comparison of the state of things for the first few years after annexation and at the present time will at once show that a vast change for the better has taken place. For the first few years after annexation, the relations of the British Government and the frontier tribes may be described as a state of chronic warfare. The Pesháwar valley was harassed by constant incursions from Swáti marauders; Kohát was the scene of frequent outrages by Afrídis, Orakzais, Turis, and Wazíris; the Sheoránis and the Kasránis were the terror of the Dera Ismail Khan villagers: the former attacked in force the town of Draband; the latter made an organised expedition against Dera Fatteh Khan. The Bozdárs plundered the north and the Gúrchanís the south of the Dera Gházi Khan district, and the former even attacked Vidore, a place of some importance opposite Dera Gházi Khan. In short, with two or three exceptions, all the tribes of the north west frontier were on the worst of terms with the British Government.

"What is the case now? The picture is completely reversed. With one or two exceptions, viz., the tribes of the Black Mountain and certain sections of the Wazíris, the British Government is on the best of terms with its frontier neighbours. The Pesháwar district is no longer subject to Swáti raids; in Kohát, *every one* of the numerous and powerful surrounding tribes has paid compensation for past offences, and sought the friendship of the British Government; while the Afrídis, formerly described as 'notoriously faithless,' have become—

not,

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not, probably, from any change in their nature, but owing to their growing trade in British territory—the most faithful observers of their engagements. Raids by Sheoránis and Bozdárs are unknown; the Lisháris and Durkhánis are settling as cultivators on British soil; and the Marrís and Búgtis, once the terror of the frontier, now co-operate with the British Government in the prevention of frontier crime; and the latter have gone so far as to surrender one of their own chiefs for being concerned, some years ago, in a raid on the British border. Cultivation, which 15 years ago, in border tracts was carried on only within matchlock range of villages, now extends to the very mouths of the mountain gorges; while such is the respect for our justice, that the wildest frontier tribes will unhesitatingly refer their disputes to the arbitration of a British officer; and some tribes have even prayed for annexation to the British dominions. Lastly, whereas in the old days raids and frays were of such frequent occurrence that they were regarded as ordinary incidents, and disposed of by local authorities; now the pettiest foray, even the theft of a few bullocks by hill thieves, is the subject of voluminous reports to Government. Our danger now is not so much from the hostile disposition of the tribes, as from the fact that, owing to constant demands for reports of various kinds, the large increase of judicial business, and the increased care required in judicial procedure, our frontier officers are crushed with office work, and have but little time for friendly personal communication with the border chiefs."

The year under review did not pass by without the occurrence of perhaps rather more than the usual number of frontier disturbances. There is, however, good reason to think that in every case the fair dealing of the British authorities brought them to a conclusion that may be regarded as satisfactory. For instance, an attack having been made by some tribes of the Waziris, on the frontier village of Thall, in Kohát, a body of troops was promptly moved to the border, and the offenders were forced to submit and pay compensation to the men of Thall; but, as it appeared on investigation that the latter had been not altogether free from blame, a small fine was imposed on the Thall villagers also, a proceeding that prompted the Waziris to express their sense of the justice of the British Government.

The disturbances in the Agror Valley were of a serious character, and it is asserted now that they were prompted by a sense of injustice on the part of the ex-Khan of Agror, Atta Mahammad Khan, whose rights, it is stated, had been misunderstood by the able officers who had successively been in charge of the Hazara district. Immediately on the discovery of the mistake it was acknowledged and rectified, and, since the free pardon of Atta Mahammad Khan and his restoration, the raids have ceased. Another raid, by a party of Kasránis and Ushteranis (residents of British territory) on the Bozdárs, living beyond the frontier, for injuries inflicted by the latter, was satisfactorily adjusted by our interference. The raiders, who had taken the law into their own hands, were fined, and further required to pay the Bozdárs compensation, while the Bozdárs made amends for the injuries they had inflicted on the Kasránis.

A striking proof (already alluded to) of the great improvement recently effected in our relations with these border tribes was displayed in the refusal of the Chief of the Búgtis to receive a man of his own tribe, formerly an officer of the frontier militia, who had fled beyond the border to escape punishment for complicity in a raid, and in the surrender of him and his followers to the British Government.

In March 1870, the Ali Sherzais, a branch of the Orakzai tribe, north of Kohát, whose conduct had for years debarred them from trade with British territory, made their submission, and, on payment of a fine and giving security for their future behaviour, were readmitted to favour. Their submission completed the political adjustment of our differences with the tribes of the Kohát border, every one of which is now on good terms with the British Government, and bound by written engagements and security bonds to abstain from and prevent the commission of outrages in British territory.

FINANCE.

There was an increase of 358,196 *l.* in the revenue of the year, and a decrease of 85,877 *l.* in the expenditure. Omitting exceptional items, there was, in 1869-70, compared with 1868-69, an increase of *bonâ fide* revenue of 240,000 *l.*, accompanied by a reduction of *bonâ fide* expenditure, making together

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together a net increase to the Imperial Exchequer equal to a quarter of a million sterling.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease
	£.	£.	£.
Land	1,969,730	74,989	—
Tributes, &c.	28,608	598	—
Forest	39,413	4,925	—
Excise on Spirits and Drugs	81,412	—	7,000
Assessed Taxes	65,048	38,824	—
Customs	70,144	12,046	—
Salt	923,060	102,585	—
Opium	1,375	—	164
Stamps	208,620	8,813	—
Law and Justice	85,616	—	2,421
Police	40,280	3	—
Marine	1,567	—	222
Education	4,980	2,630	—
Interest	513	280	—
Miscellaneous	53,668	47,508	—
Public Works,—Miscellaneous	16,302	74,802	—
" Irrigation	198,386	—	—
" Railways (Gain by Exchange)	3,439	—	—
TOTAL £.	3,792,211	368,003	9,807
Net Increase £. 358,196.			

EXPENDITURE.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Refunds and Drawbacks	30,825	12,973	—
Land	208,249	—	1,619
Forest	71,366	40,118	—
Excise on Spirits and Drugs	6,954	424	—
Assessed Taxes	473	231	—
Salt	71,564	2,108	—
Stamps	9,323	424	—
Allowances under Treaties, &c.	95,334	—	19,878
Allowances to District and Village Officers.	—	—	2,198
Total Direct Claims on Revenues	494,085	56,278	23,695
Administration	119,407	—	12,980
Law and Justice	244,119	6,748	—
Police	304,859	—	9,701
Marine	27,610	5,119	—
Education	61,831	—	2,271
Ecclesiastical	23,437	2,463	—
Medical Services	40,732	2,052	—
Stationery and Printing	13,112	2,805	—
Political Agencies	9 6,737	14,989	—
Miscellaneous	27,141	—	9,018
Pensions, &c.	19,381	70	—
Public Works Ordinary — Public Works	609,539	—	207,803
Public Works Ordinary — Supervision and Cost of Land for Railways	6,262	—	487
Public Works Ordinary — Loss by Exchange	34,851	—	19,915
Interest	304	—	1,832
Public Works, Extraordinary	172,827	111,301	—
£.	2,296,234	201,825	287,702
Surplus	1,495,977	—	—
£.	3,792,211	Net Decrease £. 85,877	

Land Revenue.

The varieties of tenure under which land is held in the Punjab are very numerous. For the purposes of this Report, they are classed under two heads:—

1. *Tenures held direct from Government.*—That is, tenures under which the holders of estates are liable (unless specially exempted) to pay land revenue to Government; but are not liable to pay rent to a landlord. Omitting Hazára and Kohát, the total number of estates so held is 57,983, comprising 56,312 villages and 2,139,912 holders, and covering an area of close on 53 millions of acres, which gives an average of 912 acres for each estate.

2. *Tenures not held direct from Government.*—Tenures, that is, under which the holders pay, or are liable to pay, rent to a landlord or superior landowner, or are mere recipients of rentcharges from proprietors. The total number of estates so held is 1,712,492.

The total assessed area is returned as 65,283,650 acres, of which 20,171,558 acres are cultivated. Of this cultivated area 5,984,891 are shown as irrigated. Of the uncultivated area (45,111,492 acres) 3,665,618 are entered as grazing lands, 14,017,793 as culturable, 27,428,081 as unculturable. The gross amount of assessment is 2,170,928 *l.*, and the average rates are 2 *s.* 2 *d.* per acre per annum on land cultivated, 1 *s.* 3 *d.* on culturable land, and 7½ *d.* on the total area.

The land revenue demand rose from 1,848,548 *l.* in 1868-69 to 1,864,375 *l.* in 1869–70, an increase of 15,827 *l.*, which was contributed mainly under "revised assessments," the result of the recent settlements in two districts. Ninety-nine per cent. of the demand was realised within the year. Tributes from 20 chiefs yielded 28,608 *l.*; miscellaneous land revenue, 115,214 *l.*; and the total realisations reached 1,998,338 *l.* Deducting from this the cost of collection (208,249 *l.*), the result is 1,790,089 *l.*

Under the head of "Miscellaneous," the item "Water-advantage Revenue," appears for the first time in the accounts. This rate denotes the Government share of the increased profits of the land, resulting from irrigation, assessed at a certain

a certain rate per acre, and is quite distinct from the water-rate proper, imposed by the canal authorities as the price of the water supplied for irrigation. Canal-irrigated lands, therefore, pay three rates of assessment:—1st, the regular land revenue at unirrigated rates; 2nd, the water-advantage revenue; and, 3rd, the canal-water rate. PUNJAB.

Under this head it is only necessary to notice an ordinance of the Governor General in Council, dated 4th October 1869, applicable to the Agrore Valley. Owing to the disturbed condition of this district for some time past, it has been found necessary to remove it from the jurisdiction of the ordinary courts and the operation of the general laws, and to place it, in all matters relating to civil and criminal justice, the settlement and realisation of the public revenue, and the peace and good government of the tract under the direct control of the Local Government. Legislative.

The police force is divided into two bodies, viz., the Trans-Indus police of the six districts in the Pesháwar and Deraját divisions, and the Cis-Indus police for the remaining 26 districts of the province. The whole force is under the direction of an Inspector General, assisted by three deputies. The force in each district is under the control of a European officer (aided in most cases by a European assistant) whose whole time is devoted to police duties, which he carries on under the general control of the Deputy Commissioner, who is the deputy magistrate. A special railway police has been organised and commenced work on the 1st January 1869. Police.

The average strength of the force during 1869 was 20,069 against 21,000 in 1868. This number gives one policeman to 880 persons, and to a little less than five square miles; but the proportion must be reduced to one-third, if police employed in guarding gaols, treasure escort, &c. are excluded, and the calculation is confined solely to the force available for the prevention and detection of crime. In Ireland the proportion of police to population is 1 to 420 persons.

The total cost of the police, to Imperial revenues, was reduced from 314,560 *l.* to 304,859 *l.* This is at the rate of a little less than 3¾ *d.* per head of population. In England and Wales their cost is more than 2 *s.* per head.

The increase in crime was confined to offences against property, and was the natural result of the terrible scarcity which prevailed. When it is considered that wheat, which was 20½ seers (41 lbs.) per rupee in 1867, and 16¼ seers per rupee in 1868, rose in 1869 to 11¾ seers per rupee, and that the southern districts of the province were swarming with starving emigrants from Rájputána, it would not have been surprising if the increase had been greater. As it was, the number of these offences in proportion to population was little more than one-third of the number annually occurring in England and Wales. Notwithstanding the enormous rise in the price of food, the number of offences against public tranquillity was *less* than in 1868.

Out of 73,056 crimes of every kind, 49,572 were brought to trial, and in 36,580 cases convictions were obtained; out of 36,089 non-bailable cases, 17,105, or 47 per cent. were brought to trial; and of 31,619 persons apprehended, 68 per cent. were convicted; an improvement on the previous year. In England and Wales about 45 per cent., and rather more than 50 per cent. respectively of the indictable offences are brought to trial, and rather more than 50 per cent. of the persons apprehended in such cases are convicted.

There were at the close of 1869, 540 tribunals of various kinds for the disposal of criminal, civil, or revenue cases, or one tribunal to 32,400 persons. These are— Judicial.

1. The Chief Court, consisting of three Judges, which is the final court of appeal in civil and criminal cases, and exercises original jurisdiction over European British subjects charged with serious offences.
2. The Court of the Financial Commissioner, which is the final appellate authority in civil suits regarding land in districts where a settlement is in progress.
3. 12 Divisional courts of session and appeal.
4. 32 Courts of district officers.
5. 119 Courts of assistants to district officers, native and European.
6. 8 District small cause courts.

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7. 8 Cantonment courts.
8. 7 Boards of honorary magistrates in towns.
9. 206 Courts of Tehsildars and Naib Tehsildars.
10. 22 District honorary magistrates, known as "Jagirdar magistrates."

The remainder consist of courts of canal, forest and Customs officers, and officers in charge of gaols, who are invested with magisterial powers for limited and specific purposes.

Criminal Justice.—The number of criminal cases coming under judicial cognisance in 1869 was 54,361. Of the cases under trial, all were disposed of within the year but 552 cases, or less than one per cent.; 5,110 cases or nearly 10 per cent. were decided by unpaid judges and 48,949 by paid judges; 33,085, or 61 per cent. by native, and 20,944 or 38 per cent. by European agency.

Notwithstanding the great strain upon the energies of the officers, owing to scarcity, sickness, and the increase in the number of offences against property, the invariable result of high prices; there was a steady and satisfactory improvement in the administration of criminal justice.

Civil Justice.—The depression of trade resulting from continued scarcity, and the prevailing unhealthiness of the year did not prevent the civil suits instituted in 1869 reaching the number of 164,595, or 3 per cent. more than the year before. This is in the proportion of one suit to 106 persons, about four times the proportion of suits to population in the North West Provinces, and more than the total number of civil suits in Bengal, Oudh, and the Central Provinces put together. The average value of each suit, however (5 *l.* 18 *s.*), though slightly greater than in 1868, was comparatively small; and the total amount under litigation was about one million sterling. Of the original suits aggregating with suits pending from 1868, 177,615, all but 7,700 or 4 per cent. were disposed of within the year at an average duration of 19 days from date of institution to date of final order. In small cause courts, the average was nine days only.

It is clear, says Mr. Thornton, that the courts are freely resorted to by people of all classes and are used largely, not only for the decision of disputed claims, but as an easy way of enforcing admitted obligations; cases are promptly decided; appeals are decreasing; sale of property in execution has seldom to be resorted to. But he fears that this result has been obtained at the expense of other branches of the Administration. Every one of the officers employed in the decision of civil suits and appeals, save the eight small cause court judges and the judges of the chief court, discharge the duties of civil judge in addition to important magisterial and administrative functions. The strength of the administrative staff was fixed in 1860, when judicial and executive business was far less than it is at present, and procedure was comparatively lax; barely sufficient then, it is utterly inadequate now, to dispose of the increased amount of business. "The result is that from one end of the province to another, complaints are received that officers are overworked; that while district officers and their subordinates are preoccupied in the disposal of petty civil suits and appeals, the revenue, the political, and the educational branches of the Administration, are being more and more neglected, while important measures of material and social improvement have to be thrown aside or perfunctorily performed, from sheer want of time. Every year it becomes more apparent that the judicial agency of the province requires considerable strengthening, and that the combination of executive and judicial functions, however suitable it may have been in times gone by, is becoming more and more unsuitable now.

Gaols.

The number of gaols in the province was 30; the total prison population was 40,880 as compared with 36,394 in the preceding year, and the daily average number of prisoners increased from 10,883 to 12,668.

The mortality in the gaols of the Punjab in 1869 was 3·37 per cent. on the average daily strength, as compared with 1·29 per cent., the death-rate in 1868; a large increase partly due to an outbreak of cholera at Amritsar and Peshawar, partly to typhus fever which broke out in the Rawalpindi gaol, but chiefly to the general unhealthiness of the year and the destitution and emaciation of many of the prisoners on their admission.

With

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With regard to the education of the prisoners, out of 11,510 prisoners at the close of the year, 8,072 could neither read nor write, 4,622 were under instruction. Their earnings, including the estimated value of convict labour, amounted to 21,000 *l.*

The increase in the expenditure from 67,085 *l.* to 83,784 *l.* was owing to the large increase in the number of prisoners, to the high cost of rations, and to the general prevalence of sickness. The average cost of each prisoner was 6 *l.* 14 *s.*, against 6 *l.* 3 *s.* in 1868.

Military.

The number of troops belonging to the Bengal Army stationed in the Punjab on the 31st March 1870 was 32,810 with 123 guns, or less than the number a year before by 3,961 men, and 8 guns. The Punjab frontier force, a force distinct from the regular army, remained at the same strength, 12,466 men; the cost of its maintenance was 363,125 *l.*

Public Works.

Here, as elsewhere, there was a considerable reduction in the expenditure from Imperial funds on public works. While in 1868-69 the sum spent was 878,868 *l.*, in 1869-70 it was 782,366 *l.* only, or 96,502 *l.* less. The two principal items of decrease were "Military Buildings" and "Communications." There was an expenditure from local funds of 33,310 *l.* on communications chiefly, and the sum of 36,392 *l.* was besides laid out on the State railways—the Punjab Northern from Lahore to Peshawur, and the Indus Valley, which is to connect Mooltan and Kurrachee.

Forests.

The Forest Department is also under the control of the Public Works Department. Its staff consists of a conservator and 23 subordinates. The forests and woodlands under its charge comprise Government property, and forests leased by the British Government in Native States. The first class includes the forests of cedar and conifers of the Hazara district, those of the chil (*Pinus longifolia*), and deciduous trees of the Rawalpindi district, the forests of Kangra and Kooloo, and many others. The leased forests are those of Chamba, on the Rivers Chenab and Ravi, consisting chiefly of deodar, and the forests of Bassahir and Puri, in the valley of the Sutlej and its tributaries. Besides these there are the extensive fuel plantations along the lines of railway.

The timber is felled in the upper forests, where it is cut into convenient logs, and carefully marked; after which, by means of artificially-made roads or "slides," the logs are launched with the aid of levers into the river, and are borne along the boiling and tumultuous current until they reach smooth water in the plains, where they are caught, counted, and formed into rafts, which are gradually conveyed to the lowest depôt. The work of the officers of the Upper River Division, besides mere felling, is the custody and conservancy of the forests, the prevention of grazing, firing of forests, &c., and the protection of the seedlings, which spring up by thousands as soon as the primal forest is cleared.

The entire supply of fuel and timber for the Northern State Railway will, for some time to come, tax the powers of the department to the utmost. The receipts of timber at the various depôts reached the sum of rather more than half a million cubic feet.

Agricultural.

The breadth of land under cultivation increased to the extent shown by the figures in the margin. The principal increase was in the inferior food grains, but there was also a considerable increase in the cultivation of wheat and cotton. The chief products of the Spring crop are wheat, oil seeds, vegetables, tobacco, peas, and opium; and of the Autumn crop, rice, the inferior grains, cotton and other fibres, sugar cane, and indigo.

	1868-69.	1869-70.
	Acres.	*Acres.*
Spring Crop -	9,255,314	9,422,361
Autumn Crop -	7,631,204	8,862,491
-	16,886,518	18,284,852

Cotton.

The area sown with cotton in 1869 was 811,794 acres, while in the two previous years it was only about 680,000 acres. The out-turn is estimated at 618,900 maunds of cleaned cotton, which gives an average of about 61 lbs. per acre; a very small average compared with that of other countries; in Egypt the yield being 500 lbs. per acre. The average wholesale price was about 37 *s.* per maund. The bulk of the cotton is retained for home consumption. Hinghanghát cotton has been tried, but it has proved unsuitable to the province.

Stock.

A statement of the live stock of the province may not be uninteresting. According to the latest returns the number of horned cattle is about 6¾ millions; the number of horses and ponies about 150,000; camels about the same; donkeys 250,000; sheep and goats, close upon four millions; and pigs 70,000.

Produce and labour.

The accompanying Table shows the prices of wheat per rupee during the past two years at the six principal places in the province. The great increase is, of course, owing to the unfavourable seasons.

	Seers of 2 lbs. per Rupee.			
	1 June 1868.	1 Jan. 1869.	1 June 1869.	1 Jan. 1870.
Delhi - -	26	11¼	15	9
Ambála - -	24	9¼	13¼	9
Lahore - -	18	9¾	13½	9½
Syálkot - -	19	10¾	13¼	10½
Multán - -	17	11¼	12½	9¾
Pesháwar -	20½	14	17⅞	17⅞

Wages varied little, if at all, during the year. Taking the average of all the towns, the highest skilled labour commands 11¾ *d.*, the highest unskilled labour 4¾ *d.* per diem. Cart hire averages 3 *s.* 8 *d.* per day; a camel about 10½ *d.* per day; and a score of donkeys 6*s.* 10*d.* per day.

The principal metallic products of the Punjab are iron, copper, antimony, lead, and gold. The various kinds of salt, including rock and evaporated salt, saltpetre, alum, barilla, and sal ammoniac are also important articles of trade. The principal beds of rock salt occur in the southern slopes of the Salt Range, where they are from 150 to 200 feet in thickness. The mineral is excavated at five places in the range, viz., at the Kheora, Makrách, and Sardi mines, in the Jhelum district, at the Warcha mine in the Shahpore district, and at the Kalabagh quarry, in the Bunnoo district. Salt exists in large quantities at nine other localities, but these mines are closed to prevent smuggling. The expense of excavation is borne by Government, and the salt is sold to traders at the mines for 6*s.* per maund of 80 lbs. The total out-turn during 1869–70 was nearly 1½ million of maunds, valued at 450,000 *l.*; in 1868–69 the out-turn was 1,307,378 maunds, valued at 376,558 *l.* Barilla is an impure carbonate of soda, prepared by burning plants of the *Salsola* and other species, and collecting the ashes. The plants grow spontaneously, but as cultivation increases, their number is diminishing; its selling price varies from 16 *s.* to 13 *d.* per maund.

The salt mines were during the year placed under the charge of the Commissioner of Inland Customs; they were visited in April 1870 by the Viceroy, and in honour of this the first visit ever paid to the locality by any Governor General, two were named after him, the "Mayo Mines."

Coal.

The steamers plying on the Upper Indus are supplied by six mines in the neighbourhood of Kálabágh which produce good fuel, but as a rule the mineral resembling coal, found in various parts of the province, has proved on examination to be lignite, more or less charged with iron pyrites and sulphur, and is not in sufficient quantity to be of much commercial value.

The province possesses sandstone, granite, and other kinds of stone useful for building purposes in abundance, also marbles, limestone, and gypsum, extensive slate quarries, and petroleum.

Manufactures.

The statistics of manufacture are as yet approximate only. The estimated value of the manufactures of the year is set down at 3,842,500 *l.*, a sum probably much below the truth. Of this, cotton produced 113,600 *l.*; silk 182,200 *l.*; wool 159,500 *l.*; wood 527,100 *l*; iron 220,800 *l.* The total number of workmen of all descriptions is about 1,100,000.

Trade.

The total value of imports increased from about 2,600,000 *l.* to 3,140,000 *l.*, while the value of exports decreased from about 2,700,000 *l.* to 2,350,000 *l.*; but the decrease was confined to the trade with Rájputána and Central India, Kashmír, and Bengal, and was to a great extent counterbalanced by the increase of exports elsewhere.

	Imports.	Exports.	Total.
	£.	£.	£.
1868-69 - -	2,569,477	2,699,044	5,268,522
1869-70 - -	3,138,757	2,348,825	5,487,582

Compared with 1868-69 there was a very large decrease in the imports of sugar, oil-seeds, and grains. On the other hand, there was a very large increase in the imports of salt and rice, and a considerable increase in those of cotton, prints, cotton cloths, and flour. There was a large increase in the export of sugar and wool, and a decrease in that of dyes, ghee, oil-seeds, rice, and sugar.

The officials of the Maharaja of Kashmír continued to co-operate cordially with Dr. Cayley in opening out the Changchinmo route for traders between Yárkand and the Punjab. The great difficulty experienced in the want of supplies, water and fodder, will be removed by the supply depôts which are being erected by the Maharaja. At the commencement of the year the rates of transit duty *viá* the Changchinmo route, were reduced from five to four per cent., and at the close of the year the duties were abolished altogether. The value of the trade passing through Ladákh in the season of 1869 was about 65,000 *l.*, exclusive of ponies, mules, and gold and silver ingots; including only the through traffic between British India and Eastern Turkestan, the increase was from 30,000 *l.* to 50,000 *l.* The principal articles of import were raw silk, silk fabrics, brick tea

from

from Lhassa, felt rugs and carpets, gold dust and silver ingots; the exports were chiefly otter skins, clothes, and calicoes. There is an increasing demand for indigo, and the green tea of Kangra, which sells at Yárkand, at from 8 *s.* to 14 *s.* per lb.

It was rumoured, when the report closed, that the number of merchants *en route* from Yárkand to Leh and Pálampore was larger than it had ever been.

Fairs.

For the development of trade between Central Asia and Hindustan, two new annual fairs have been established in the Punjab, one at Pálampore, in the Kángra Valley, for traders from Yárkand, Khotan, and the other countries of Eastern Turkestán; the other at Pesháwar, for the merchants of Bokhára, Khokand, Khiva, and Western Turkestán, as well as for those of Afghánistán and of the countries lying to the north of the Pesháwar Valley.

The Palampore fair was established in 1867. The one opened on the 1st November 1869, and continued through the month, was therefore the third. The total number of traders present was 420, of whom 200 were from Yárkand and Ladákh, 190 from the hilly regions of Spitti, Lahaul, Kooloo, Mandi, and Kángra, and the remainder from the plains of the Punjab. The value of the goods brought for sale was estimated at 31,400 *l.* and the value of the sales at 20,500 *l.*

The first Pesháwar fair was opened on the 1st December 1869, under great disadvantages, owing to the sickly season, and continued for 40 days. The traders who attended were, with few exceptions, Cábulis and Pesháwaris. The gross value of the articles brought for sale was estimated at 50,000 *l.*, and of the sale at 31,800*l.* The fair was sufficiently successful to give encouragement for the future.

Education.

There were in the Punjab, in 1869-70, 1,427 Government educational institutions, 710 grant-in-aid institutions, 3,995 unaided indigenous schools; a total, therefore, of 6,132. The average daily attendance of scholars at all these institutions was 73,768. In 1868-69 the number of schools was 7,761, and the average attendance 141,665.

In almost every class, except in the case of colleges, aided district schools of the middle and lower classes, and aided normal schools, there was a considerable decrease in the number of both institutions and students. This may be stated generally to be mainly due to four causes: 1st. The policy adopted of gradually reducing the *number* of institutions, with a view to providing an adequate staff of suitably paid teachers for the remainder. 2ndly. The severe scarcity and sickness which prevailed during the year. 3rdly. The exhaustion of the savings of previous years' income of the educational cess fund, from which many village schools were supported. 4thly. The closing of many female schools, for which it was impossible to provide efficient teachers. On the other hand, there are signs that the reduction in the numbers of the scholars has been accompanied by a marked improvement in the proficiency of the students. The success of the Punjab students at the Calcutta University examinations was, upon the whole, very satisfactory; a larger number of students entered at the colleges at Lahore and Delhi, and the constitution of the University College at Lahore, founded in 1868, was rapidly proceeded with. During the year, a Senate was appointed by the Lieutenant Governor, including all the chief officers of the province, and other gentlemen, European and native, distinguished for attainments in literature and science, or for zeal in the cause of education; each native chief who has contributed to the endowment, also appointed a representative. In all, the Senate numbers about 70 members. Its first meeting to draw up a detailed scheme for carrying into effect the objects of the institution, in accordance with the principles set forth in the statutes, was held on the 11th January 1870. On the 31st August of the same year, the institution had to its credit 24,300 *l.*, the greater portion of which was the gift of the chiefs of Kashmir, Patiála, Bháwalpore, Jind, and Nábha; the Maharajah of Kashmir having given 3,100 *l.* to found a scholarship in the name of Sir Donald McLeod, and the other chiefs 4,000 *l.* to be expended in founding scholarships in honour of His Royal Highness Prince Alfred, these being in addition to their original donations, amounting in all to 12,700 *l.*

Lahore University.

Scientific and Literary.

The collections of the Lahore Central Museum were enriched by numerous additions, and were visited by 28,000 persons. The Government Book Depôt is doing a good work, As many as 118,910 books were supplied for distribution and use in schools; 92,614 were sold to the public at cost price, and a large number of books and maps were issued gratis to vernacular schools, and given as

prizes. At the close of the year there were 61 printing establishments in the Punjab, exclusive of the Government secretariat and gaol presses. There were six vernacular periodicals, and 425 books were published, most of them being fresh editions, translations, and compilations.

Vital statistics.

Fever and cholera largely increased the rate of mortality in the year 1869. The number of deaths registered among the civil population was 453,821, or 26 per thousand; in the 143 towns, of more than 5,000 inhabitants, where registration is more accurate than in rural tracts, the average death-rate was returned as 36 per thousand. A committee appointed to inquire into the circumstances of the cholera epidemic reported that it could be traced, generally, to the impurity of the drinking water, and praised the conduct of the local authorities during the crisis. A great advance was made in the improvement of vital registration in towns, and of sanitary arrangements generally.

Hospitals and dispensaries.

The charitable institutions of the Punjab comprised the hospital attached to the Lahore medical school maintained from Imperial revenues; 99 dispensaries situated at all the principal towns and important places in the province, besides six institutions in foreign territory, under the superintendence of European medical officers; two lunatic asylums at Delhi and Lahore; leper asylums in several places, chiefly supported from local sources, and the systematised employment of native practitioners paid from a cess voluntarily raised by the people. There was a remarkable increase in the number of patients treated at the charitable dispensaries, amounting to 132,874 more than in 1869; the total number who received relief being 604,385, or about one person in 29 of the entire population.

Telegraph.

There were 808 miles of telegraph lines at the close of the year, and telegraph offices at 14 towns. The total number of messages dispatched was 30,128.

Municipalities.

At the close of the year there were 118 towns in the Punjab with municipal committees constituted under Act XV. of 1867, besides 197 other places where municipal income was raised in accordance with long standing custom, or under executive orders of the Government. Municipalities established under Act XV. of 1867 are divided into three classes, the committees of the first class having power to spend their income without reference to superior authority, and subject only to a Government audit of accounts, the second and third being more under the control of the commissioner and district officer. The restriction of the levy of octroi duties to certain specified articles, and the exemption from taxation of all articles which had paid Customs duty, produced a considerable loss of municipal income, which had to be made up by fresh taxes, which were not altogether popular, and caused some distress among the poorer classes.

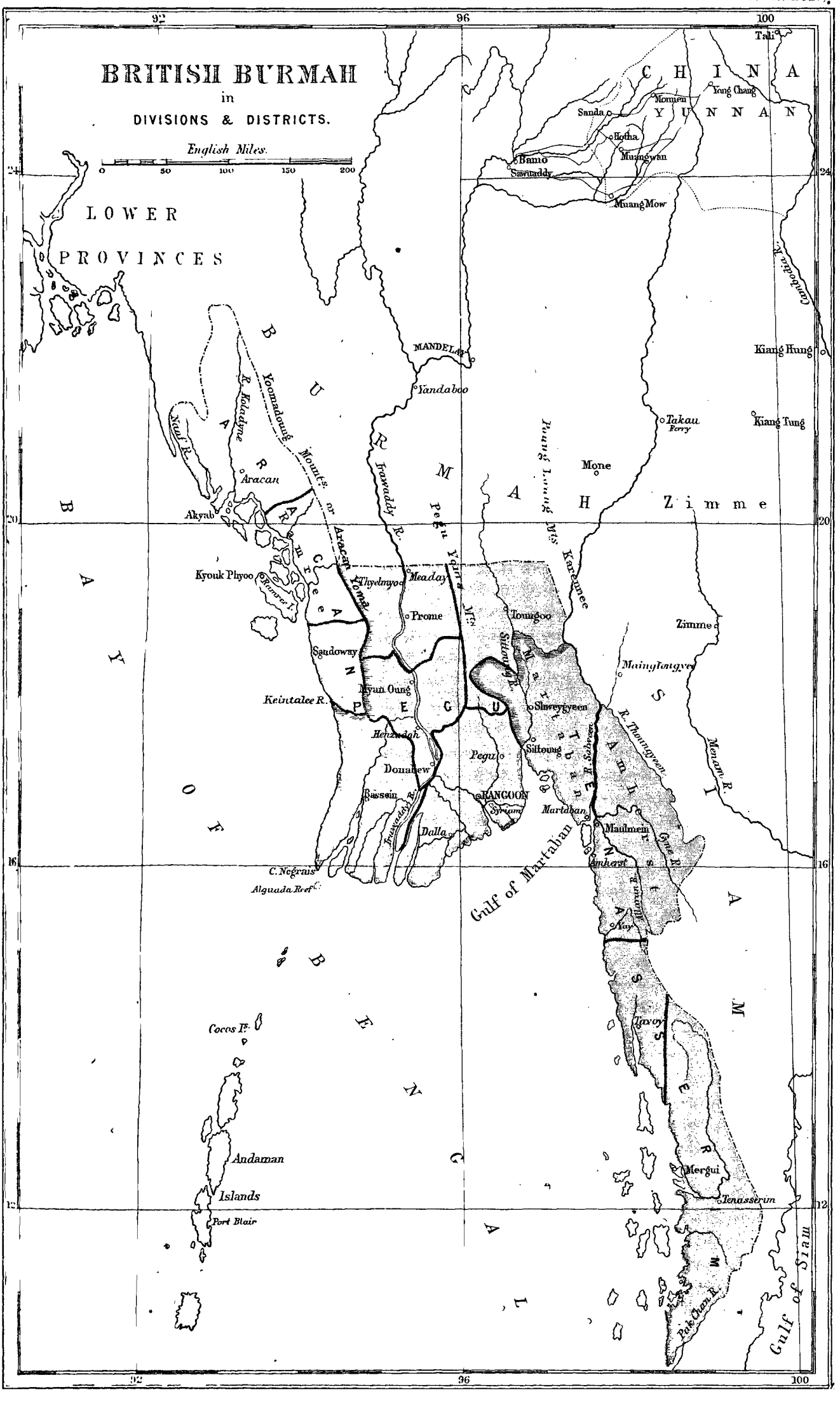
	Income.	Expenditure.
	£.	£.
1868-69 - -	160,880	174,083
1869-70 - -	143,746	138,601
Decrease - £.	17,134	35,482

Sir Donald McLeod's term of office expired in the year 1870. The social and material progress of the Punjab in the five years of his Lieutenant Governorship will be gathered from the following interesting statistics:—

	1864-65.	1869-70.
Revenue from Imperial taxes and receipts -	£. 3,115,523	£. 3,789,507
Revenue from local taxes and receipts -	£. 295,500	£. 322,415
Value of claims contested in Courts of Law -	£. 621,531	£. 1,012,693
Area irrigated by canals - - - -	acres 764,266	acres 1,162,983
Average selling price of land per acre -	11 *s.*	1 *l.* 1 *s.* 6 *d.*
Miles of railway open - - - - -	253	530
Number of letters carried by the Imperial post.	7,027,831	10,467,238
Native newspapers - - - - - -	2	10
Graduates of the Calcutta University -	0	15
Students in the Punjab Colleges - -	31	89
Scholars in aided schools - - - -	14,989	25,257
Private contributions to educational institutions.	£. 6,945	£. 18,851

	1864-65.	1869-70.
Dispensaries - - - - - -	41	99
In-door patients - - - - -	13,775	23,652
Out-door patients - - - - -	247,752	576,970
Private contributions to dispensaries -	£. 425	£. 3,345
Municipalities legally incorporated - -	2	121
Municipalities, others - - - -	47	197
Police:		
Per-centage of convictions to arrests -	66·6	68·1
Per-centage of stolen property recovered -	27	38·6
Criminal Justice:		
Per-centage of sentences confirmed on appeal	51	54·5
Civil Justice:		
Per-centage of orders confirmed on appeal	44	56·7
Deeds registered at the Registration Offices	39,343	137,525
Gaols:	For five years ending 1864.	For five years ending 1869.
Per-centage of mortality to daily average strength.	6·55	2·51

and upwards of four millions sterling have during the same period been expended on public works.


BRITISH BURMAH
in
DIVISIONS & DISTRICTS.
English Miles.
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LOWER
PROVINCES
CHINA
YUNNAN
Tali
Yong Chang
Momien
Sanda
Hotha
Muangwan
Bamo
Sawuaddy
Muang Mow
Cambodia R.
Kiang Hung
Kiang Tung
Takau
Ferry
Mone
Zimme
Zimme
Mainglongyee
Menam R.
R. Thoungyeen
Gyne R.
Amherst
Maulmein
Martaban
Gulf of Martaban
Yay
Tavoy
Mergui
Tenasserim
Pak Chan R.
Gulf of Siam
MANDELAY
Yandaboo
Irawaddy R.
Pegu Yoma Mts.
Pong Loung Mts.
Karennee
Toungoo
Sittoung R.
Sittoung
Shweygyeen
Martaban
R. Sabreen
Pegu
RANGOON
Syriam
Dalla
Irawaddy R.
Donabew
Bassein
Henzadah
Myan Oung
Keintalee R.
Sandoway
Prome
Meaday
Thyelmyo
Kyouk Phyoo
Ramree I.
Akyab
Aracan
Naaf R.
R. Koladyne
Yoomadoung Mounts. or Aracan Yoma
Aracan
Ramree
Pegu
BURMAH
BAY OF BENGAL
SIAM
Cocos Is.
Andaman
Islands
Port Blair
92
96
100
24
20
16
12

British Burmah.

British Burmah extends along the eastern shore of the Bay of Bengal, from the Chittagong Division of the Lower Provinces to the Pakchan River in 10° N. lat. It has four natural divisions: (1) the narrow strip of country between the Bay of Bengal and the summit of the Aracan-Yoma range, which terminates at Cape Negrais; (2) the Valley of the Irrawaddy between the Aracan-Yoma and a lower range of hills in the centre of Pegu, called the Pegu-Yoma; (3) the Valley of the Sittoung, between the Pegu-Yoma and the Poung Loung Mountains, which divide Pegu from independent Karennee; (4) the Valley of the Salween, with its tributaries.

The soil throughout Arakan is alluvial; the islands are of volcanic formation, and though rocky are fertile. In the Delta of the Irrawaddy the soil is very rich, but owing to the sparseness of the population a comparatively small area is under cultivation. The climate is warm, moist, and depressing, but on the coast on the frontier it is not unhealthy.

Aracan and Tenasserim were taken by the British after the first Burmese war in 1824. Pegu was taken at the conclusion of the war of 1852, a war provoked by the exactions, cruelties, and insolent conduct of the Burmese Government. The whole coast, from Chittagong to the Pakchan river, thus became British territory; and the kingdom of Burmah lost not only its finest province, but all its seaport towns, and was thrown back into the interior with no outlet, except through British territority or China. In 1862 the three divisions of Arakan, Pegu, and Tenasserim, which had previously been under separate administrations, were united and formed into the present Provinces of British Burmah, and placed under a Chief Commissioner. Civil Divisions.

The population of the Province of British Burmah during 1869-70 was 2,463,484, which, in an area of 98,881 square miles, amounts to 25 persons per square mile. The Land Tax contributed rather less than one-fourth of the gross revenue. There were 137 magistrates, and the police force numbered 5,703 men, averaging one magistrate to 17,981 persons, and one policeman, nearly, to 432 persons. There are 10,948 villages in the Province, whose average distance from the nearest court is nearly 50 miles.

Divisions.	Districts.	Area in Square Miles.	Population.	Gross Revenue.
				£.
Arakan - -	3	23,529	447,957	174,840
Pegu - -	5	36,454	1,533,505	885,500
Tenasserim -	4	38,898	482,022	168,210
Total - -	12	98,881	2,463,484	1,228,550

The two most populous towns are Rangoon, with 96,942, and Maulmain, with 71,534 inhabitants. Next to these at a long interval come Prome (24,616), and Bassein (20,111). The increase in the population during the year amounted to 2·8 per cent. for the whole province. The increase was greater in Tenasserim (4·31 per cent.) owing to immigration from the Shan and Karennee States, and from India. A large portion of the population of British Burmah is a moveable one. Numbers of coolies from the Madras coast are attracted to the country by the enormous wages which labour commands there. As soon, however, as they have accumulated any money, they return to their homes, and few ever settle down as colonists in British Burmah. About 25 per cent. of the total population are agriculturists.

Three leading events during the year under review are deserving of special consideration; namely, 1st, the opening of a good road between the British district of Toungoo and the more remote countries of Karennee and the Shan States. 2nd. The establishment of a court at Mandalay for the trial of all civil cases in which British subjects and Burmese and British subjects were concerned. 3rd. The establishment of an Assistant Political Agent in the remote town of Bhamo, with the view of re-opening the old commercial route over the Kachyen Hills towards Western China. Relations with Native States.

The route between Toungoo and the countries of the Karennees and the Shans has long been rendered unsafe by the Tsankoo Karens, a lawless people who occupy the western slopes of the great watershed of the Sittang and Salween valleys, and exact a species of black mail from all cattle and goods which pass through their country. Becoming bold, their exactions increased, and at last a more audacious raid than usual made it necessary for Major MacMahon to come to an understanding with the offending tribes. His first audience with them was

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brought to a sudden conclusion by the appearance of a wild pig, to which every man gave chase, but the next day they proceeded to business, and the chiefs agreed to abide by a fixed rate of tolls for men and cattle passing through their country. The proceedings were concluded by a ceremonial oath, known as "drinking truth." A bowl of a spirit extracted from rice was placed in the centre of the contracting parties. A gun, a sword, and a spear were then placed in the bowl, and the spirit was drank by all concerned.

In the following May (1869) the same officer concluded an arrangement for opening up a peaceful route through the country of the Gekko Karens, which lies to the north-east of the Toungoo district.

Civil Court at Mandalay.

The establishment of a civil court at Mandalay for the trial of British subjects, or Burmese and British subjects, was provided for in the Treaty of 1867, but it was not till August 1869 that the difficulties started by the Burmese king and his ministers were overcome, and the court could be opened on a satisfactory basis. It has proved successful, and is believed to have been as satisfactory to the Court of Mandalay as to the community at large.

Political officer at Bhamo.

Equally successful results have attended the appointment of a British officer to the remote station of Bhamo. Prior to 1855 this town was an emporium of a trade which had long been carried on between Bhamo and Western China, and, like other ancient cities, it was a centre of religion as well as of commerce. Within the last 18 years this trade has been brought to a close by the constant wars between the Mussulman Panthays and the Chinese of Yunan. It is hoped that the Assistant Political Agent at Bhamo may be able to establish peaceful relations with both the Panthays and the Chinese, and that the Chinese and Shan caravans may soon again visit Bhamo, bringing down silks, furs, and tea, in exchange for the piece-goods and hardware of British manufacture.

The first efforts of Captain Strover were directed to establishing friendly relations with the Shans and Kachyen Hill chiefs, and opening up communications with the Panthay chief of Momein. He succeeded in both of his objects, through the agency of an intelligent Kachyen chief, who brought back word from that place that the Panthay chief was engaged in an intermittent war with a Chinese robber chief, who received encouragement from the Chinese authorities. As regards the Shan and Kachyen chiefs, Captain Strover has succeeded in winning their confidence, and when matters have quieted down at Momein, which there seems some likelihood of their doing, the route over the hills can be followed without fear of interruption on the part of the Kachyens.

Tribes on the Upper Salween.

A few words should be said regarding the tribes which inhabit the territory on the upper course of the Salween beyond the British boundary. They are called the White and Red Karens. The first are distinguished by their white tunics, and are of a mild and peaceable disposition. The Red Karens wear red turbans and red drawers, and are, on the contrary, at constant feud with each other. The chiefs are regarded as patriarchs, who have little more than nominal authority; the people are under no restraint beyond the fear of retaliation, and no Red Karen is therefore ever seen abroad without his matchlock and dagger, or a number of spears.

The difference between the White and Red Karens extends to their religion. The White Karens have arrived at a monotheistic idea, and adore an almighty and mysterious power presiding over the world; while the Red Karens, far behind them, are still struggling with the crude religious ideas connected with the primitive belief in ghosts or spirits. The Red Karens are divided into East and West Karens.

The normal condition of these territories is one of lawlessness, and it is difficult to see in what way the British Government can interfere to maintain order. The Red Karens are practically independent of any other power. To the south of their territory lies that of the chief of the Zimmay Shans, who also is nearly as independent, although owing allegiance to the court of Siam. Of late years the lawless state of these territories on the Upper Salween, and regions to the north and eastward, has been aggravated by a fierce dispute between the Zimmay Shans and the Eastern Karennees, respecting a tract of forest land, highly valuable for its timber, the trade in which has by this dispute been brought almost to a standstill.

FINANCE.

From the accompanying figures, in explanation of which little need be said, it will be observed that the total revenue of the year shows a falling off of 69,362 *l.* The increase in the land revenue is attributable to a much larger amount of the collections

collections due in 1869–70 having been received within the official year than is usually the case. The decrease under excise arose from the opium farms not having realised the high prices of the previous year, and to the sale of a smaller amount to the farmers. Customs were affected by the much smaller exportation of rice; nevertheless, the receipts were equal to those of any previous year except 1868–69, which was altogether an exceptional one, from causes that will be explained. Less salt was imported, and less was manufactured in the country. However, when all is said, if the extraordinary receipts realised in 1868–69 under "Customs," be deducted from that year's account, it will be found that the revenues of the province generally showed an increase.

The expenditure in 1869–70 exceeded that of 1868–69 by 44,764 *l.*, but deducting certain extraordinary charges, such as the debiting to local funds the losses of the Bassein and Maulmein Port funds, amounting to 22,187 *l.*, this increase is reduced to 2,577 *l.*, which may be looked upon as a very satisfactory result.

REVENUE AND RECEIPTS.	1869–70.	Compared with 1868–69.		EXPENDITURE.	1869–70.	Compared with 1868–69.	
		Increase.	Decrease.			Increase.	Decrease.
	£.	£.	£.		£.	£.	£.
Land	638,958	70,419	—	Refunds, &c.	9,465	- -	3,177
Forest	98,477	16,717	—	Land	97,515	9,344	—
Excise on Spirits and Drugs	106,146	- -	15,584	Forest	42,146	- -	179
Assessed Taxes	15,495	4,984	- -	Excise	17,240	9,435	--
Customs	203,388	- -	81,505	Assessed Taxes	297	- -	61
Salt	12,832	- -	1,566	Customs	16,038	1,261	—
Stamps	54,096	1,125	—	Salt	818	269	—
Law and Justice	26,707	- -	48,770	Stamps	1,425	- -	32
Police	25,064	- -	8,364	Total Direct Claims on the Revenues £.	184,944	20,309	3,449
Marine	7,107	- -	217	Administration	35,883	- -	67
Education	465	- -	3	Law and Justice	79,756	- -	129,547
Interest	901	- -	122	Police	139,486	4,928	—
Miscellaneous	2,230	739	—	Marine	58,059	18,715	—
Public Works, Miscellaneous	5,265	- -	7,215	Education	8,190	- -	2,909
				Ecclesiastical	5,190	- -	122
				Medical Services	10,988	- -	810
				Stationery and Printing	5,356	- -	423
				Political Agencies, &c.	7,409	- -	6,121
				Miscellaneous	3,975	812	—
				Pensions, &c.	3,004	- -	43
				Public Works, Ordinary	182,604	- -	71,070
				Interest	* *	- -	1,214
				Total Expenditure £.	724,844	44,764	215,775
				Surplus	472,287		
TOTAL £.	1,197,131	93,984	163,346	£.	1,197,131		
		Net Decrease, £. 69,362				Net Decrease, £. 171,011	

Land.

The principles observed in carrying out settlements in British Burmah differ from those prevailing in India. It is difficult to persuade the people to take a lease, even for a short term of years, though the terms offered are very liberal; but when a cultivator is willing to accept a settlement, he is assessed according to the area of his land, the rate being determined by four considerations, namely, the present rate of tax per acre, the average yield of rice, the local price of the produce, and the distance from and the means of conveying the produce to the nearest market. During the duration of the lease, the holder may extend his cultivation by taking up waste land, and not until the expiration of the original settlement is he required, on renewing the lease, to pay an additional rent for the area of waste land he has brought under cultivation, which is calculated at one-half the rates levied upon the land under settlement in the first instance. Remissions of the tax are allowed on any portion of the land lying fallow, or when any uncontrollable cause, such as drought or murrain, falls hardly on the cultivator. *Toungya* cultivators are differently assessed. In some districts each male pays a tax of two shillings per annum; in others the same tax is paid by each family, and this rate is an uniform one, having no reference to the amount of the land taken up; the Toungya system corresponds to the *Joom* cultivation of the hill tribes of Chittagong and the north east, and like it is most wasteful. It is only pursued in the hill districts.

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There are no landed proprietors in the provinces; the holders of land being themselves the cultivators in almost every instance; and with the exception of a few large grants of land, which have been made chiefly to Europeans or natives of India, there are no holdings of any great size, the average area of a holding being about three or four acres. All tenures in the province are held direct from Government.

Capitation Tax.

Next to the land tax the capitation or poll tax is the most profitable source of revenue. It is levied on all males between the ages of 18 and 60 years, Government servants, immigrants for their first five years of residence, and those suffering from bodily or mental infirmity being exempted. The demand for 1869-70 was 216,253 *l.*, or rather less than one-fifth of the total revenue.

The total revenue demand in 1868-69 was 1,207,503 *l.*; in the year under review it was 1,154,056 *l.* This falling of 53,447 *l.* was owing to decreases under the heads of customs, excise, and salt. The decrease under the first head (from 284,893 *l.* to 203,388 *l.*) was a reaction from the abnormal state of things of 1868-69, when an unusual number of vessels, discharged at the close of the Abyssinian war, arrived in ballast and carried away large shipments of rice to European ports. Under every head but these three the revenue demand was higher in 1869-70 than in the previous year. The increase (7,843 *l.*) under "Land" shows that a larger amount of rice land must have been cultivated during the year under review; that under the capitation tax proves that there must have been an increase in the population. Forests produced 98,477 *l.*, or 16,717 *l.* more than in 1868-69.

The land and other direct taxes are collected by persons who are called "Thoogyees." Their payment consists of a commission amounting to 10 per cent. on all collections up to 600 *l.* and 5 per cent. on sums in excess of that amount. They are men of position and influence, and the appointments are much coveted by the people. During the Burmese rule these appointments were frequently hereditary.

Legislative.

No legislative power is vested in the administration of the province. The want of a Municipal Act to provide for the conservancy, improvement, and watching of towns, and for the levying of rates and taxes, is said to be strongly felt. Legislation is also said to be needed to check the loss to the timber trade caused of late years partly by dacoity in the neighbouring State of Zimmay and Hmineloongyee, and partly by ruinous litigation. There were in 1869, 137

Judicial.

tribunals for the disposal of criminal, civil, and revenue cases, exclusive of the courts of certain officers in charge of gaols in the Forest and Public Works Departments, whose powers are very limited.

They consisted of the following:—

1 *Chief Court*, presided over by the Chief Commissioner, which is the Sudder court of the province.

3 *Divisional Courts*, presided over by the Commissioners of Divisions, which are Courts of Session and Appeal.

2 *Recorder's Courts*, which have original jurisdiction in civil suits, and are Courts of Session and Appeal in criminal matters.

12 *Courts of District Magistrates*, which have jurisdiction in civil, criminal, and revenue matters. These courts are empowered to try all sessions cases save those punishable with death, and to pass sentences of imprisonment for periods not exceeding seven years.

3 *Courts of Town Magistrates* with criminal jurisdiction only.

3 *Courts of Small Causes.*

115 *Courts of Assistants to Magistrates of Districts*, European and Native.

Criminal Justice.—The increase of 14 per cent in the number of non-bailable offences was large, the population having increased 2·8 per cent. only, but it was confined chiefly to theft. The bailable offences increased 22 per cent. and occurred principally in the Pegu Division. The average duration of trials for the whole province was 4·9 days. Of 41,555 persons brought to trial (an increase of more than 7,000, as compared with 1868) 21,868, or 52·50 per cent. were convicted.

Reported Offences.	1868.	1869.
Non-bailable -	8,114	9,264
Bailable - -	13,790	16,993
Total - -	21,904	26,257

The

The principal point calling for remark is the increase in the crime of cattle theft, which appears to have been general to all the districts of the Pegu Division. The better payment of the police in Pegu and Arakan appears to have attracted a better class of men, whose influence is more appreciable.

Civil Justice.—The civil courts, not including the two Recorder's Courts at Rangoon and Maulmain and the three Small Cause Courts at Rangoon, Maulmain, and Bassein, are classed in six grades. The first, second, and third grades have original jurisdiction in suits not exceeding 50 *l.*, 300 *l.*, and 500 *l.* in value; the fourth grade has original jurisdiction in suits the value of which exceeds 500 *l.*, and in appellate cases. The courts of this grade are presided over by Deputy Commissioners. The courts of the fifth grade, presided over by Commissioners of Divisions, have appellate jurisdiction only; and the Chief Commissioner's Court has special appellate jurisdiction.

The number of original suits instituted during the year was 19,957 against 18,259 in 1868. The cause of this increase in litigation is not accounted for, except on the supposition that it betokens generally an improved and active market. A bad harvest and the dulness of the timber trade produced a decrease in some of the districts. The total value of suits instituted advanced from 127,907 *l.* to 148,300 *l.*, and the average value of each suit from 7 *l.* to 7 *l.* 10 *s.* The average cost of each suit was 18 *s.*, the total costs being 27,295 *l.* The total number of cases of all kinds, including those pending, was 30,538, or 2,858 more than in 1868. The number decided was 29,982 or 10 per cent. more than in the preceding year. Of the total number of original cases disposed of, 4,093, or 20 per cent., were struck off without trial, and 12,042, or 60 per cent., were decided in favour of plaintiff or defendant.

The working of the several courts of original jurisdiction on the whole improved, more especially in the courts of the first and second grades; and as these courts are presided over chiefly by men who were selected on account of their hereditary qualifications, this result is the more satisfactory, and is attributable to the rules now in force, making it incumbent on all newly-appointed officers to pass certain examinations within a prescribed period. The number of books on legal subjects translated into Burmese are increasing, and as they appear are eagerly sought after, so that there is reason to hope that year by year there will be an improvement in the working of the courts where native judges preside.

The complaint of last year is repeated, that the severest portion of the Chief Commissioner's duties is created by his supervision of the working of the lower courts, and that every year shows more clearly the necessity for the appointment of a Judicial Commissioner for British Burmah, who shall relieve the Chief Commissioner from the petty details which call away his attention from affairs of more importance. At present that officer is frequently a judge in his own cause, having to determine many points intimately affecting the revenue and the well-being of the Government for which he is responsible.

Prisons.

There are two central gaols, namely, at Rangoon and Maulmain, one first-class, five second-class district gaols, and seven lock-ups. The number of prisoners confined in them was 17,630, or no less than 5,741 over the average of the five previous years. This remarkable increase is put down to a remarkable cause, the increased prosperity of the people, of which the explanation is given, that the people having become wealthier are more inclined to assist the ruling power to put down the dacoits than to regard them as local heroes as they did when they had little to be robbed of. It is worthy of note that there is no class of juvenile criminals in this province, as there is in European countries, owing to the fact that there is little poverty or privation amongst even the lower orders of Burmese, and consequently no incentive for boys to commit crime, and no necessity for reformatories. Monastic teaching again has a sensible and beneficial effect upon the moral character, and the vices which disgrace gaols in other countries are rarely, if ever, to be found in British Burmah. Very few of the convicts are agriculturalists, because, as a rule, this class are well off, and, therefore honestly inclined.

A careful system of classification is carried out, and the employment of convicts is resorted to for the minor gaol offices, both these measures proving beneficial, and, with the exception of the desperate outbreak which occurred in the Rangoon gaol on the 15th November 1869, the conduct of the prison population

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was good. The ticket-of-leave system is found to work well, and is very advantageous in a country where labour is in such demand.

As many as 38 per cent. of the aggregate number of prisoners are able to write, and this per-centage would be much higher did these last consist of Burmese alone.

While the average cost of each prisoner for five years preceding 1869 was 6 *l.* 5 *s.* 5 *d.*, in that year it was 5 *l.* 16 *s.* only. The charges vary considerably at the several gaols; for instance, the cost of a "labouring" convict's ration is 6 *s.* 6½ *d.* per mensem in Thayetmyo Gaol, and 1 *s.* 10½ *d.* only in Sandoway Gaol.

The mortality for 1869 (1·54 per cent.) contrasts favourably with the average of the five preceding years, 2·56 per cent., and would have been less but for an outbreak of cholera in some of the gaols.

Police.

The police force for the protection of 94,000 square miles of country amounted in 1869 to 5,703 men. A great improvement has been observable in this body since an increase of pay was granted to them. They are still, however, far from able to cope with crime, which has increased with the population, being maintained at the same strength as in 1861, though the population since then has doubled. Their difficulties are increased by the lawlessness which prevails along an extended frontier.

Dacoity.

The decrease in case of dacoity robberies, always a fair index of the efficiency of police, was marked during the year. These crimes are not, it appears, the result of family feuds, or local grievances, nor are they led by hereditary robber chiefs. They generally originate in a mere desire for plunder, and are often joined by young men from love of adventure, and a desire to establish a character for bravery and daring. A dacoit generally commences his career with cattle stealing, and, if successful, finally takes to dacoity; and when he has made his reputation, he can without difficulty obtain men to follow him in his expeditions, gamblers sometimes, or even ordinary cultivators, who will return to their peaceful occupations when the dacoity is over.

Gambling prevails to a great extent in the country, and there are great difficulties at present in repressing it, because the action of the police is, under an Act of 1867, confined to gambling within towns; and against gambling out of town limits, a warrant can only be issued by three classes of officers, whose numbers are small. It is suggested that the Act III. of 1867 should be extended to the whole province, and that the power to issue warrants should be extended to all magistrates.

Lighthouses.

Three lighthouses have been erected on the coast of Burmah from Imperial funds; one on the Alguada reef, off the mouth of the Bassein River, one on the most northerly of the Cocos Islands in the Bay of Bengal, and one on the Krishna shoal, about 60 miles from Rangoon. The Port Funds have contributed one on Double Island off the entrance to the Maulmain River, one off Akyab, and one off the port of Rangoon. With two exceptions these lighthouses are worked entirely by natives.

Public Works.

The sum expended on public works from Imperial and local funds amounted to 218,108 *l.*, or 56,000 *l.* short of the grant. The largest items of expenditure were, military (46,000 *l.*), communications (44,000 *l.*), and civil buildings (38,000 *l.*)

At Rangoon, the works of the great pagoda defences were completed, the foundations of the harbour defences were laid, and a convenient road from the pagoda to the Royal Lakes was finished. Good progress was made in the construction of jail buildings, and those at Thayetmyo and Toungoo were completed at a cost of 32,600 *l.* The great work of constructing the Henzadah Embankment was completed at a total outlay of 80,000 *l.*; and a partial survey of the Irrawaddy proved the feasibility of embanking the eastern side of the river and bringing a large tract of country under cultivation.

But undoubtedly the kind of public works to which, of all others, attention should be given are "communications." A country more than three times as large as Scotland possesses, at present, only 655 miles of road altogether, of which 124 are first-class and 374 second-class. The great want of the province in this respect is fully recognised by the local government, who are pushing forward the works with all the means at their disposal, and have submitted to the Government of India an elaborate scheme of roads for the province.

A survey of the country has proved that there are no engineering difficulties in the

the way of the construction of the proposed railway between Rangoon and Prome, and very complete plans and estimates have been prepared. BRITISH BURMAH.

The fact that only 3,000 square miles of the fertile province of British Burmah are cultivated, out of a total area of 94,000, incline the Chief Commissioner to think that large assistance, in the shape of railways, roads, and agricultural schemes must be given before any considerable increase to the revenue, by the extension of cultivation, can be expected.

The staple product is rice, with which 1,712,030 acres were sown during the year, showing a general increase throughout every district. The area of "Toungya" cultivation, or hill clearings, increased also from 50,249 to 54,449 acres. Cotton is little grown, 6,596 acres only being sown with it during the year under review. The cultivation is chiefly carried on in the remote districts. The fibre of the indigenous cotton is short but strong. There is only one small plantation of tea. The number of live stock increased. The yield of rice per acre ranges from about 4,000 lbs. in the Shwegyeen district to 840 lbs., the average yield in Tavoy. Rice rose from 4 *s.* 4½ *d.* for 80 lbs. to 4 *s.* 5 *d.*; cotton from 16 *s.* 5 *d.* to 18 *s.* 5 *d.* Wheat fell from 10 *s.* to 6 *s.* 5 *d.* The average price of a bullock is 5 *l.* 8 *s.*, and of a buffalo 6 *l.* 11 *s.* Teak timber is 5 *l.* per ton at Maulmain and 5 *l.* 10 *s.* at Rangoon. The price of skilled labour ranges from 4 *s.* a day to 1 *s.* 4 *d.* Unskilled labour averages 1 *s.* The only mines of importance in the province are the tin mines of Mergui, which would be very remunerative if properly worked; as yet none but the Chinese have entered the field. The principal manufactures of the province are silk and cotton goods for home use chiefly. *Cutch*, a substance used in dyeing, an extract of the acacia catechu, is also manufactured in large quantities for exportation to Europe. In the Prome district very good lacquered ware is made.

Agriculture.

Produce and labour.

Mines.

Manufactures

It will be seen that there was a falling off of 1,250,000 *l.* in the seaborne trade and an increase of 74,392 *l.* in the inland trade in the year under review. The decrease in the exports was exclusively in rice and timber. With regard to the former, besides the explanation that has already been given on this point, the trade was affected by two reasons: 1st, the shipments of 1868-69 resulted in great losses, owing to the enormous quantity of rice which was poured into India, not from Burmah alone, but from Siam and French Cochin China; 2nd, grain was held back in expectation of a reduction of the duty. When, however, no such reduction was announced by the Finance Minister in his statement on the 2nd April 1871, trade immediately revived, and the year 1870-71 will doubtless show a return to more than the average.

Trade.

	1868-69.	1869-70.
	£.	£.
Seaborne Trade:		
Exports - -	4,447,718	3,603,698
Imports - -	4,096,465	3,615,554
Total Seaborne -	8,544,183	7,219,253
Inland Trade:		
Exported to Upper Burmah and Shan States -	1,232,407	1,283,588
Imported from do.	882,097	905,308
Total Inland -	2,114,504	2,188,896

The inland trade (on which no duty is charged) is carried on with Ava and the Shan States by the Irrawaddy and Sittoung rivers. It is estimated that over 25,000 native boats were employed on the Irrawaddy alone during the year; besides which the steamers of the Indus flotilla made 33, and those of the King of Burmah 18 trips. In November 1869 the first British steam-vessel, the "Colonel Fytche" passed beyond Mandalay, the capital of the King of Burmah, and proceeded to Bhamo, the station on the eastern bank of the Irrawaddy, from whence the caravans proceeding to Western China usually took their departure, when the trade routes were open. It carried the newly-appointed Assistant Political Agent, and a party of merchants from Rangoon with a small consignment of goods to test the market.

There are 14 dispensaries, at which 38,564 persons were treated. A medical college is said to be much needed here for the instruction of the natives of the country, for little progress can be expected while the only means of obtaining an elementary knowledge of medicine are dispensaries, of which the entire staff is composed of natives of India, men of different caste, language, and creed.

Dispensaries.

The educational wants of the people are as yet indifferently provided for. During 1869-70 there were only 182 schools in British Burmah, which were in any way under Government supervision, and they were nearly all of them private schools indirectly assisted by grants in aid. They have grown with the growth of the British power in Burmah, and are gladly resorted to by the people of every

Education.

British Burmah.

race, not, it is said, for the sake of religious instruction, but as a means for the promotion of their happiness and prosperity in this life. The total expenditure from Imperial and private sources for the education of 6,347 pupils in attendance at all the schools was 18,620 *l.* during the year. This number of pupils in a population of 2½ millions is confessedly small; but it must not be forgotten that the education of the masses, in reading, writing, and arithmetic has, from time immemorial, been provided for by the indigenous schools attached to the Buddhist monasteries scattered throughout the country, as well as by a number of private village schools, both male and female, which are carried on by private individuals, either as paid schoolmasters, or as acts of religious merit; as a consequence of this indigenous system of education, few persons of the male sex in British Burmah are unable to read and write, and are not familiar with the rudiments of arithmetic. It is known that there are about 4,000 schools of this kind, attended by nearly 50,000 children, and these numbers are considered much below the mark.

The Educational Department was formed in 1866 with the view of imparting a higher knowledge of the subjects taught in the monastery schools, when this could be done without hurting the prejudices of the monks, and of gradually incorporating them in the Government scheme; it can be understood the undertaking is one of considerable difficulty, and requires delicate handling. The chief difficulties at the outset are two in number; the first is the weakness of the inspecting staff, which can at present exercise a supervision over only 26 out of the 4,000 monastic schools, and the second is the disorganised state of monastic rule in British. Before the British occupation of the country the sovereign was practically the head of the ecclesiastical hierarchy, and it is not to be wondered at that under the present rule, which disconnects itself with all matters relating to the religion of the people, there should have been a decay of ecclesiastical discipline in the absence of a controlling head. This, added to the fact that the primary education carried on in the monastic schools is regarded merely as a work of religious merit, undertaken for the purpose of securing reward in a future life, or to win the favour of a superior, and secure ecclesiastical promotion in this life, sufficiently accounts for the listlessness and indifference which prevails. It has been suggested that the local government should restore the lost power of the monks by appointing in each district a superior to whom all should be subordinate, and, through him, introducing our books and system into the monastic schools of the district; or, it has been suggested, the monks of a district should be induced to elect a superior among themselves, who should be the medium between the Deputy Commissioner and the bodies they represent. Both measures, however, would require the greatest care: the future status of the monastic schools must of course very much depend upon the success of the Government schools when larger funds permit their extension throughout the country; but under no circumstances can they be entirely ignored, nor is it likely that they will be entirely superseded.

Madras.

Madras.

A geographical description of the Presidency of Madras is little more than a description of its coast, which occupying as it does one-half of the coast-line of peninsular India, is the distinguishing feature of the Province. From Cape Comorin, to where the Bombay Presidency commences, the distance is 540 miles, and a line drawn from the same point to Ganjam, the north-easternmost boundary of Madras, measures 1,187 miles. Parallel to the Malabar coast, on the west, run the Western Ghauts, at an average distance of 40 miles from the sea; parallel to the eastern coast, but at a greater distance from it, are the Eastern Ghauts These two ranges form the buttresses of the tableland of the Deccan, and below the plateau of Mysore they are united by a range which crosses the Peninsula. There is a singular absence of good harbours along the coast of Madras. Pondicherry, the city of Madras itself, and other ports on the Bay of Bengal being absolutely without shelter for ships. Coconada, in the delta of the Godavery, by means of continual dredging, is capable of holding small craft. Tuticorin has a fair harbour, so has Cochin, and harbours of refuge might be constructed in the back waters, at the foot of the Western Ghauts; but of good natural harbours, such as Bombay possesses in Bombay itself, and Sureya and Poshetra, in Guzerat, the province of Madras possesses none. The extreme length of the province inland, from Ganjam across country to the coast of Canara on the west is about 950 miles.

THE PRESIDENCY
OF
MADRAS
DIVISIONS & DISTRICTS.
English Miles.
0 50 100 150 200
Native States. Yellow.
CENTRAL PROVINCES
HYDERABAD
(NIZAM'S DOMINIONS.)
JEYPORE AGENCY
China Kimedy
Goomsoor
Chilka Lake
Ganjam
JEYPORE
Godavery R.
Sabree R.
Calingpatam
Chicacole
Vizagapatam
Godavery
Rajahmundry
Yanaon (French)
Coconada
Coringa
Masulipatam
Kistnah R.
Guntoor
Kistnah
NORTHERN CIRCARS
GOLCONDA COAST
ORISSA COAST
Toombudra R.
Kurnool
Bellary
Gooty
CEDED DISTRICTS
Cuddapah
MADRAS RAILWAY
Pennar R.
Nellore
Kistnapatam
BAY OF BENGAL
MYSORE
North Arcot
Ghittoor
Vellore
Arcot
Arconum
Pulicat
MADRAS
Chingleput
Palar R.
Sadras
Bangalore
Cauvery R.
Mangalore
COORG
Cananore
Manantawady
Tellicherry
Mahe (French)
Calicut
Beypore
Neilgherry
Ootacamund Hills
Coimbatore
Salem
MADRAS RAILWAY
South Arcot
Pondicherry (French)
Cuddalore
Collerson R.
Trichinopoly
GRT SOUTHN OF INDIA RAILY
Tranquebar
Caricall (French)
Nagpore
Negapatam
Vadarniem
Calimere Pt.
Poodacottah
Cochin
Madura
R. Vigay
Ramnad
Paumben Channel
Palk Strait
Adams B.
Travancore
Quilon
Trivandrum
Tuticorin
Tinnevelly
C. Comorin
MALABAR COAST
Gulf of Manaar
COROMANDEL COAST
INDIAN OCEAN
CEYLON
76
80
84
20
16
12
8

MADRAS.

miles. It has an area considerably larger than that of Great Britain and Ireland, and a population of about 27 millions. The rivers follow the slope of the land from west to east. The most important of them are the Vigay, the Cauvery, the Pennaur, a portion of the Godavery, and the Kistna, which with its tributary the Toongabudra, forms the northern boundary of Madras, and separates it from the Nizam's dominions. For administrative purposes it is divided into 21 districts. The Governor is assisted by a Council of three members (one being the Commander in Chief, and the other two members of the Civil Service) and by a Legislative Council.

Legislation.

Six Acts were passed during the year by the Council for making laws and regulations, and received the assent of the Governor General. Act III. of 1869 empowers revenue officers to issue summonses for the attendance of persons, or the production of documents, where necessary; inconvenience having been experienced in revenue administration from the absence of such express provision. Act IV. provides for the better management of boats and catamarans in the Madras Roads. Act V. is for the regulation of gaols, and for the enforcement of discipline therein. Act VI., "An Act for regulating the Affairs of the Madras Equitable Assurance Society," is destined to protect the interests of the general body of shareholders in the society, and to place its affairs on a firm and satisfactory basis. Act VII. continues an Act passed in 1859, with the view of providing a speedy mode of trying and punishing murderous outrages committed by the Moplahs of Malabar, a class of Mohammedans subject to outbreaks of religious fanaticism. Act VIII., for clearly defining the rights of Inam holders, was noticed in last year's Report.

JUDICIAL (Civil Justice) High Court.

There are six classes of Civil Tribunals in the Presidency. The High Court ordinarily consists of four puisne judges besides the chief justice. It exercises original jurisdiction within the Presidency town of Madras and the suburbs, and appellate jurisdiction over the whole Presidency.

1. High Court.	4. Small Cause Courts.
2. Civil Courts.	5. District Munsiff's Courts.
3. Principal Sadr Amins Courts.	6. Village Munsiff's Courts.

Civil Courts.

The Presidency is divided in 21 zillahs, which are for the most part conterminous with the Revenue districts, and each zillah has a civil court. A civil court's original jurisdiction extends over all suits of the value of 1,000 *l.* and upwards in zillahs where there is a principal Sadr. Amin, and of the value of 100 *l.* and upwards in zillahs where there is none. Its appellate jurisdiction extends over all suits tried by district Munsiffs and principal Sadr Amins. Of the latter, there are 12. Their original jurisdiction extends over suits of the value of more than 100 *l.*, but less than 1,000 *l.*, and their appellate jurisdiction over appeals transferred to him by the civil courts.

Besides the Madras Court of Small Causes, there are seven ordinary and five Cantonment Small Cause courts. The first have original jurisdiction over small causes of the value of 50 *l.* or less; the Cantonment Courts are limited to suits of 20 *l.* There are 110 district munsiffs, divided into three grades. They have original jurisdiction in suits of the value of less than 100 *l.*, and special small cause jurisdiction in small causes of less than 5 *l.* in value. The head man of the village is *ex officio* village munsiff. His power extends over original suits of less than 1 *l.* in value, and by consent of the parties he can decide as arbitrator in suits up to 2 *l.*

The purely judicial establishments of the Presidency cost approximately 205,000 *l.*, of which the salaries of the presiding officers constituted 68 per cent. The number of barristers, attorneys, vakeels, and pleaders practising was 2,200, or perhaps somewhat less. The requirement of tests, and of a knowledge of English on the part of pleaders in civil courts, has effected an improvement in the average intelligence of legal practitioners throughout the Presidency.

The statistics of the year show the working of the courts to have been satisfactory. The entirely new suits numbered 192,006 in 1868 against 185,282 in 1869, or in the proportion of 1 to 138 of the population; yet the arrears have continued to diminish. The proportion of the new suits borne by the different courts was as follows: For the mofussil, village munsiffs, 20·80; district munsiffs, 60·15; small cause courts, 6·10; principal sadr amins, 1·48; civil judges, &c., ·37: for Madras, small cause court, 10·77; high court, ·33; so that the population of Madras, though only 1·7 per cent. of the entire Presidency, originated 11·10 per cent. of the total litigation. It also appears that the great mass of arrears are on the files of the district munsiffs;

	1868.	1869.
Pending at the beginning of the year.	62,612	59,308
Instituted and remanded	186,115	192,684
	248,727	251,992
Disposed of (excluding transfers) - - -	189,419	193,924
Pending at close of year -	59,308	58,068

MADRAS.

and that the per-centage of suits disposed of is lowest in the civil courts, and the high courts, and highest, as might be expected, in the Courts of Small Causes.

Criminal justice.

There are seven classes of criminal tribunals in the Presidency. The ordinary jurisdiction of the high court in criminal matters is co-extensive with that exercised in civil matters. Its extraordinary jurisdiction extends to all European British subjects. Every civil court is also a court of session, which holds monthly sittings for the trial of persons committed.

1. High Court.
2. Session Courts.
3. District Magistrates' Courts.
4. Divisional Magistrates' Courts.
5. Madras Police Magistrates' Courts.
6. Subordinate Magistrates' Courts.
7. Courts of Heads of Villages.

District, divisional and subordinate magistrates' courts.

The magistrates of districts are, with one exception, also the chief revenue officers of their districts. The divisional magistrates in charge of divisions of districts are: joint magistrates, head assistant magistrates, deputy magistrates, or assistant magistrates. The subordinate magistrates may be officers in charge of taluks or divisions, or even officers of a higher grade in charge or attached, and therefore not exercising full powers. The head man of a village is *ex-officio* village magistrate in criminal matters, as he is also village munsiff in civil matters.

The number of offences of all kinds committed in 1869 was 138,354 against 131,330 in 1868. The increase was for the most part in cases coming under special laws, chiefly under the head of offences against municipal acts. There was a marked decrease in the serious crimes—murder, dacoity, and robbery, and an increase in petty offences against the person (which increase year by year), and in contempts of legal process. Of all offences committed, 65·4 per cent. were brought to trial, and of the cases brought to trial, 78·6 per cent. resulted in conviction.

Police.

The Madras police were, at the close of the year, 9·8 per cent. below the strength estimated for in the year's budget. Their number, including all ranks, was 23,296 against 24,574 at the close of 1868-69. Their cost was 399,835 *l.*, of which, 26,448 *l.* was debitable to purely State services, and 28,660 *l.* was contributed by the municipalities, leaving 371,175 *l.* as the net Imperial outlay for the prevention and detection of crime, and showing a reduction of more than 10,000 *l.* on the previous year's expenditure.

The proportion of the force that can read and write was 62·9 per cent.; 19 per cent. were under instruction in the district schools. There is the same complaint of the low rate of pay of the men, and therefore an increasing difficulty in obtaining educated recruits. Of 63,516 offences reported by the police, 32,956 were prosecuted to conviction; these figures being slightly more satisfactory than last year.

Gaols.

There are 37 central and district gaols in the Presidency. The average daily number of prisoners confined in them was 9,933, or 219 less than during 1868-69. The health of the prisoners was good, though the death-rate (3·90) was slightly in excess of that of the year before. The proportion of the prison population entirely ignorant, which was 80·31 per cent. in 1868-69, was 82·46 per cent. at the close of 1869-70. Nevertheless, classes have been established in many gaols, in which about 3,300 prisoners were under instruction, and considerable progress was made in their education. The cost of all the gaols, exclusive of guards and buildings, was 67,563 *l.* as compared with 74,164 *l.* in 1868-69.

Remission of sentences.

The system by which prisoners are enabled to obtain partial remissions of their sentences, which was sanctioned in July 1868, and has been adopted in some of the central gaols, has worked well. The principle is, that the sentence is represented by a certain number of marks, at the rate of six marks a day, and that by good conduct and industry every convict sentenced to rigorous imprisonment for 18 months and upwards can reckon an additional half or one whole mark per diem. He must first, however, undergo a period of probation, equal to one-sixth of his sentence, before he is admitted to enter the third class, and to commence to earn remission. In this class he must remain six months at least; in the second four months; and when in the first class he has earned 2,555 marks (365 days at seven marks a day), he is eligible for promotion to the grade of maistry. As a maistry he can earn one month's remission of his sentence for every year of service; if promoted at the end of a year to the grade of warder, he can earn remission at the rate of two months a year. The number of marks that can be earned is the same in all the classes, but in the higher grades certain indulgences, in the way of writing letters or seeing relatives, are granted.

The

MADRAS.

Manufactures. The prisoners' manufactures consist, for the most part, of weaving, mat, basket, and rope making; to which, in some of the prisons, are added paper making, artisans' work of different kinds, pottery, and tent making. The printing press and bookbinding establishment at the Penitentiary continued to be a valuable aid to the Government press.

Registrations. The number of registrations effected was 133,963, or 12·2 per cent. more than in 1868-69, when it was 119,301, and 22 per cent. more than in 1867-68. The value of the transactions registered was 7,616,644 *l.*, very nearly two millions more than the year before.

Finance. The notable features of the figures in the accompanying Statement are the considerable increase in the revenue they exhibit under nearly every head, and their general agreement with the estimates.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69.		EXPENDITURE.	1869-70.	Compared with 1868-69.	
		Increase.	Decrease.			Increase.	Decrease.
	£.	£.	£.		£.	£.	£.
Land Revenue	4,482,706	413,917	—	Refunds, &c.	32,017	9,475	—
Tributes	346,643	4,000	—	Land	421,393	—	10,608
Forest	49,855	10,722	—	Forest	27,925	1,150	—
Excise on Spirits and Drugs	570,022	79,179	—	Excise on Spirits and Drugs	23,699	—	1,259
Assessed Taxes	135,423	71,842	—	Assessed Taxes	2,686	991	—
Customs	276,485	—	3,109	Customs	17,026	—	45
Salt	1,164,736	57,483	—	Salt	141,456	8,077	—
Stamps	406,482	34,135	—	Stamps	18,562	2,221	—
Mint	2,407	—	974	Mint	7,234	—	6,936
Law and Justice	92,712	7,080	—	Allowances under Treaties, &c.	454,328	152,676	—
Police	35,246	—	5,290	Allowances to Village Officers, &c.	—	—	52,032
Marine	2,321	122	—	Total Direct Claims and Demands on the Revenues	1,146,326	174,590	70,880
Education	6,339	—	18	Administration	136,445	—	7,200
Interest	14,213	1,268	—	Law and Justice	419,030	4,413	—
Miscellaneous	266,768	5,826	—	Police	371,175	—	10,616
Army—Miscellaneous	180,303	—	124,666	Marine	7,255	—	12,245
Public Works—Miscellaneous	46,971	21,034	—	Education	110,309	7,241	—
				Ecclesiastical	38,222	—	2,231
				Medical Services	86,309	13,113	—
				Stationery and Printing	42,968	7,272	—
				Political Agencies, &c.	9,915	—	1,595
				Miscellaneous	111,865	—	1,937
				Pensions, &c.	234,676	37,132	—
				Army	2,993,813	—	22,971
				Public Works, Ordinary — Public Works Supervision and Cost of Land for Railways	657,666	—	141,460
				Public Works, Ordinary — Loss by Exchange on Railway Transactions	7,172	—	2,467
				Interest	19,953	31,462	—
				Public Works—Extraordinary	90,127	6,311	—
					117,661	—	5,208
		706,608	134,057	£.	6,600,887	281,534	278,810
		Net Increase, £. 572,551.		Surplus	1,478,745	Net Increase, £. 2,724.	
TOTAL £.	8,079,632			£.	8,079,632		

Revenue. The season of the year 1869-70 was a favourable one, and where distress was felt at all, it was not from want of rain so much as from its being ill-timed or unevenly distributed. The receipts from all sources reached the sum of 8,079,632 *l.*; the expenditure amounted to the sum of 6,600,887 *l.* The charges of collection were in the proportion of 8·9 per cent. on the revenue, while in 1868-69 they were at the rate of 10·6 per cent.; but in that year an unfavourable season had lowered the land revenue, whilst in the one under review considerable reductions of expenditure took place under pressure from the Supreme Government. The area of land under cultivation was nearly 17 millions of acres, assessed at 3,260,000 *l.* The Abkari revenue, which had slightly decreased in 1868-69, was greater in the year under review than it had ever been before. The amount raised by the income tax (115,853 *l.*) which was levied on incomes at 1½ per cent., was greater by 35,000 *l.* than that obtained from the license tax of 1867-68 at 1·2 per cent., and 60,000 *l.* more than the certificate tax of 1868-69, at 1 per cent., yielded. Sea customs yielded 259,000 *l.*

Abkari.

Income tax.

MADRAS.

From the statement in the margin, showing the total value of the imports and exports (excluding treasure), and the value of some of the principal items, it will be seen that trade fell off considerably during 1869-70; that the falling-off was greatest in coffee and cotton wool, and that there was an increase of more than 140,000 *l.* under indigo. The imports of treasure exceeded the exports by 1,142,000 *l.* In spite of the falling-off in the export trade the area cultivated with cotton increased by 626,602 acres, and reached the figure of 1,771,378 acres. The cultivation spread in all the great cotton districts, but most of all in Bellary. The bulk of the cotton (92 per cent.) went, as in previous years, to the United Kingdom; the exportation to Hong Kong, which began in 1868-69, increased, and a market was found for the first time in Holland. Though the quantity of cotton exported fell off 23 per cent. and its value 11 per cent., a revival of the trade may be expected from the larger area brought under cultivation during the year.

	1868-69.	1869-70.
	£.	£.
Imports - -	5,140,061	5,118,448
Exports - -	7,675,099	7,324,531
Total - - £.	12,815,160	12,442,979
Imports:		
Cotton Piece Goods Plain	995,774	926,699
„ Dyed,&c.	349,534	328,302
Rice - - -	213,073	378,924
Raw Silk - -	60,951	122,886
Spices - -	77,488	101,723
Exports:		
Coffee - -	1,066,522	882,111
Cotton Wool -	2,139,982	1,912,505
„ Goods -	229,503	222,036
Indigo - -	610,355	754,774
Rice - - -	691,093	592,038

Salt.

The salt trade was disturbed by the new Act, which raised the price of the article from 3 *s.* 4½ *d.* to 4 *s.* per maund from the 19th October. Sales were stopped to such an extent that the revenue diminished, but after a month or two they partially recovered, when the stock in the hands of retailers had become exhausted and there remained no hope of the price being reduced. At the end of March 1870 the transactions of the whole year showed an increase of 5 per cent. in revenue and a decrease of 5 per cent. in sales. The sales for exportation, however, which were not affected by the monopoly price, increased considerably.

Inam Lands.

When the British power became paramount it had to encounter a large number of claims to Inam or rent-free lands, to determine the validity of which commissions were instituted in 1817 in this Presidency and in Bombay. On the 1st November 1869 the Inam Commission in Madras ceased to be a special department, and the completion of its duties was transferred to the Board of Revenue.

Forests.

The year 1869-70 was one of progress in forest conservancy. Several new plantations were formed, a large extent of land was enclosed for "Railway fuel reserves" (the Madras Railway alone consumes about 50,000 tons of wood per annum), and the efforts of Government were directed to checking the depredations which an increasing population and the spread of agriculture tend to bring about.

PUBLIC WORKS.

The reduced assignment for Public Works was 819,998 *l.*; the original grant having been 167,000 *l.* more. The figures in the margin show the very considerable decrease in the expenditure on new works in consequence, compared with 1868-69.

New Works.	1868-69.	1869-70.
	£.	£.
Military - -	110,149	56,362
Civil Buildings -	133,806	110,814
Agricultural -	135,002	120,148
Communications -	96,285	77,477
Miscellaneous -	5,658	13,275
Total - - -	480,900	378,056
Repairs - -	249,306	210,855
Establishment -	171,494	177,719
Tools and Plant -	18,607	8,375
Total - £.	920,307	775,005

The outlay from local funds was 227,820 *l.*, or 20,000 *l.* more than the previous year.

Progress was made with the military buildings at Bangalore, Bellary, and other stations; and with the Lawrence Asylum at Ootacamund, in the Neilgherries, which is to provide accommodation for 400 boys and 300 girls, the children of European soldiers. Gaols consumed the larger portion of the expenditure in civil buildings; good progress was made with them.

There is the same complaint here, as in other provinces, of the progress of new irrigation works being retarded by delay in the submission of plans and estimates, owing to the time of the officers whose duty it is to prepare them being taken up with their current duties. The deepening of the tanks for the water supply of Madras made sufficient progress to allow of a large quantity of water being stored in them. The value of the work was at once proved by their enabling the fields to be fully cultivated, when without them, the north-east monsoon having almost entirely failed, there would have been no water.

In the construction of Lake St. Lawrence, on the Neilgherries, has been attempted for the first time, in the case of a reservoir of large size, what is termed the silting process, by which the running water itself is made the agent for excavating and depositing the soil for the dam. Unfortunately, extraordinary floods broke through the embankment during the progress of the work, considerably retarding its completion.

In Madura, the project for diverting the waters of the River Peryaur, from their

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their natural outfall westward, into the Vigay, which runs eastward into the Bay of Bengal, was vigorously proceeded with.

Communications

Under the head of Communications, it is satisfactory to observe that a considerable sum of money was expended in improving the communications of the coffee-growing district of Wynaad with both the western coast and the interior. The work is a very important one and has encountered much delay. Some progress was also made with the navigable canals of the Presidency. In the north, the canal connecting the Chilka Lake and the Ganjam River was opened to traffic; the Cheyaur Channel was deepened; the extension of the East Coast canal northwards to Kistnapatam was advanced; and the main canal between Negapatam and Vadaraniem is nearly complete.

The Madras Pier which, it will be recollected, was injured in 1868 by a French barque drifting on to it, has been repaired, and is now in working order. The cost amounted to much less than was estimated, and was defrayed partly from Imperial and partly from local funds.

Ootacamund water supply.

The storage reservoirs and channels for the regular water supply of Ootacamund would have been completed had not rock of the hardest nature been met with during their construction.

Irrigation and Canal Company.

The total expenditure of the Irrigation Canal Company was 195,770 *l.*, of which 133,641 *l.* went to construction; and the total expenditure in India from the commencement of the undertaking has been 1,342,046 *l.*

Trade.

The tonnage of vessels entering the ports of the Madras Presidency in 1869-70 rose from 2,420,215 tons to 2,735,040 tons, or 13 per per cent.; the customs yielded 256,246 *l.*, slightly less than in 1868-69; the value of the year's trade decreased 6·6 per cent. chiefly in the exports. The principal ports of the province are Madras, Cochin, Tuticorin, Coconada, Calicut, Negapatam, Mangalore, and Tellicherry. At the most important, Madras, the value of the imports and exports was 5,666,472 *l.*, or more than a third of the whole; at the smallest, Tellicherry, it was 505,374 *l.* It is feared that the effect of the opening of the Suez Canal will be rather to draw to Bombay trade which would otherwise find its outlet at Madras. The trade of Coconada is in a flourishing condition; the value of its imports and exports in 1869-70 was slightly over a million sterling, showing an improvement of 111,734 *l.* on the year before. Measures are being taken to divert the enormous quantity of silt brought down by the Godavery, the accumulation of which causes great inconvenience to shipping operations.

	Imports.	Exports.	Total.
	£.	£.	£.
1868-69	6,954,214	9,512,472	16,466,686
1869-70	6,718,914	8,648,400	15,367,314

Paumben Channel.

The improvement of the Paumben Channel proceeded slowly. The object of this work is to cut through a sandbank which connects the island of Rameseram with the mainland; to make a channel of the same depth as the soundings on either side, and so to relieve native craft and vessels of small burden from the necessity of circumnavigating Ceylon. As the soundings reveal an average depth throughout the Gulf of Manaar of about 10 feet, the channel can never be used for vessels of any size. The number of vessels that passed through was 2,092, aggregating 166,746 tons. Cochin is the most important port on the West Coast; the value of its trade is second to that of Madras, though only one-fourth of it. Mangalore is yearly rising in importance, and perhaps ranks next to Cochin on the west coast.

The Madras mint was closed on the 31st August 1869, and a bullion depôt established under the charge of the assay master. The transactions of the Currency Department nearly doubled in the year under review, and represented a value of over 9,200,000 *l.*

The five divisional commands in this Presidency were reduced to three; the average strength of the army was less than in 1868-69; the ratio of deaths to strength in the European and in the Native forces was 2·47 and 1·03 respectively, being an increase in both cases.

	Average Strength.	
	1868-69.	1869-70.
British troops	9,915	10,156
Native troops	29,467	26,772
	39,382	36,928

Education.

The total number of colleges and schools connected with the Educational Department on the 31st March 1870 was 3,134, and the number of pupils attending them was 105,455; that is, there was one school to every 42 square miles, and one scholar to every 251 of the population. The large increase which these figures represent was entirely among

	1868-68.	1869-70.	Increase.
Colleges and schools	2,421	3,134	29 per cent.
Pupils	86,982	105,455	21 per cent.

MADRAS.

among the private schools, and was caused by a large number of schools, almost entirely of the lower class, having during 1869-79 qualified for grants-in-aid. Of these aided schools 490, attended by 27,252 pupils, were managed by missionary societies.

The gross outlay on education was 110,309 *l.* in 1869-70, against 103,068 *l.* in the preceding year; from this must be deducted the sum of 6,339 *l.* realised from fees and the sale of books.

Municipalities.

The Municipal Act of 1868 was introduced during the year into three more towns, making the total number of towns in which it is now in force 44. The current revenue of the municipality of Madras was 36,000 *l.*; for the towns in the Mofussil it was 72,000 *l.* It is evident that the feeling in favour of the municipal institutions is strengthening, and that the inhabitants begin to appreciate the benefits of improved conservancy and consequent freedom from epidemics, as well as the facilities to traffic afforded by the roads being now kept in good order.

Government Press.

There was an increase of 7·8 per cent. in the work of the Government press, owing mainly to the establishment of a branch press in the Madras Penitentiary. The saving to Government by executing their own printing is considerable.

TRAVANCORE.

The State of Travancore lies between the sea on one side and the districts of Madura and Tinnevelly on the other. Its length is 190 miles; its area of 4,700 miles is considerably smaller than that of Yorkshire, and it has a population of one million and a half.

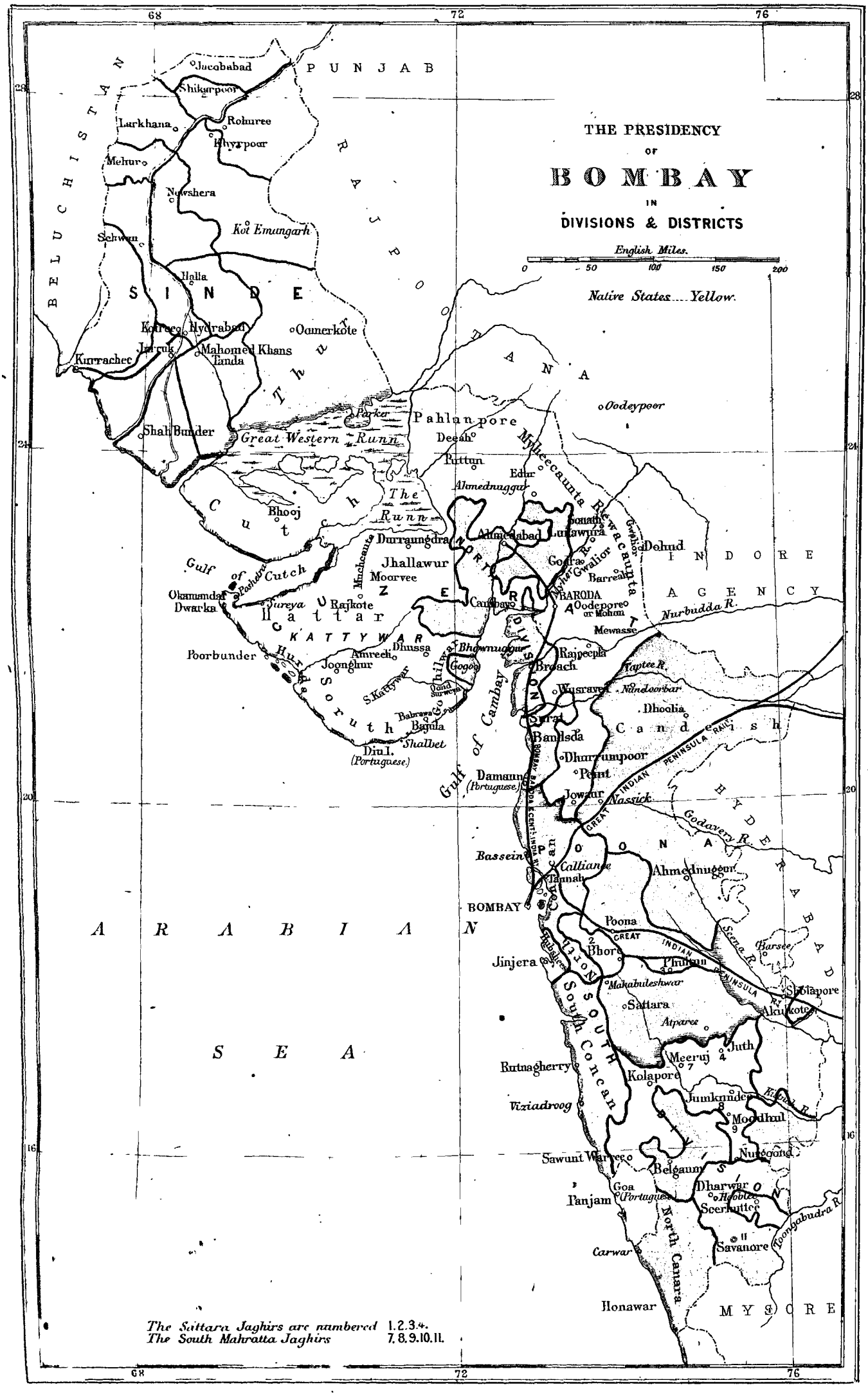
The total receipts during the year ending the 14th August 1870 amounted to 513,400 *l.*, and the disbursements to 544,113 *l.* This apparent deficit was caused by two unusual items of expenditure, which were fairly chargeable against the accumulations of former years; the first of them being a religious ceremony which is performed once in six years; the second, a sort of coronation, which is performed once in a reign. The two ceremonies cost much less than those which preceded them, and are time-honoured customs which cannot summarily be set aside.

Land revenue produced 166,695 *l.* or rather less than in 1868-69, owing to the unfavourable nature of the season. The general stagnation of trade produced a loss of 4,400 *l.* in the Customs revenue, which brought in 36,382 *l.* Tobacco produced 77,503 *l.*, a falling-off of 6,100 *l.*, which was chiefly attributable to a reduced import duty. Salt realised 95,722 *l.*

The largest item of expenditure was, it is satisfactory to see, "Public Works," to which nearly 97,000 *l.* were devoted. His Highness the Maharajah, and his minister, Sir Madava Row, received the congratulations of the British Government on the continued success of their efforts to improve the administration of the country.

COCHIN.

The little independent state of Cochin adjoins Travancore on the north, and is about the size of Bedfordshire. Like Travancore, its finances are in a very flourishing condition that reflects much credit on the administration. The receipts amounted to 119,113 *l.* and the expenditure to 114,874 *l.*


THE PRESIDENCY
OF
BOMBAY
IN
DIVISIONS & DISTRICTS
English Miles.
0 50 100 150 200
Native States.... Yellow.
68
72
76
28
24
20
16
BELUCHISTAN
PUNJAB
RAJPOOTANA
SINDE
Jacobabad
Shikarpoor
Larkhana
Rohuree
Khyrpoor
Mehur
Nowshera
Kot Emungarh
Schwan
Halla
Kotree
Hydrabad
Oomerkote
Jurruk
Mahomed Khans Tanda
Kurrachee
Parkur
Pahlunpore
Deesah
Oodeypoor
Shah Bunder
Great Western Runn
Puttun
Edur
Ahmednuggur
The Runn
Cutch
Rhooj
Durraungdra
Jhallawur
Moorvee
Gulf of Cutch
Pashdra
Okamundal
Dwarka
Jureya
Rajkote
Mucheeta
Ahmedabad
Lunawura
Godra
Barreah
Baroda
Oodepore or Mohun
Dohud
INDORE AGENCY
Nurbudda R.
Mewasse
Cattiawar
KATTYWAR
Poorbunder
Amreeli
Dhussa
Joonghur
Gogo
Bhownuggur
Rajpeepla
Broach
Taptee R.
Wusraver
Ningloorbar
Dhoolia
Candeish
Surat
Bandsda
Dhurrumpoor
Peint
Damaun (Portuguese)
Diul (Portuguese)
Shalbet
Gulf of Cambay
Jowhur
Nassick
Godavery R.
HYDERABAD
Bassein
Callianee
Tannah
Ahmednuggur
BOMBAY
ARABIAN SEA
Poona
Jinjera
Bhore
Phultun
Makabuleshwar
Sattara
Atparee
Sholapore
Akulkote
Meeruj
Juth
Ratnagherry
Kolapore
Viziadroog
Jumkundee
Moodhul
Sawunt Warree
Belgaum
Nurgoond
Goa (Portuguese)
Panjam
Dharwar
Hoobly
Scerhuttee
Carwar
Savanore
Honawar
MYSORE
Kistna R.
Toongabudra R.
The Sattara Jaghirs are numbered 1.2.3.4.
The South Mahratta Jaghirs 7.8.9.10.11.

BOMBAY.

THE Presidency of Bombay occupies a narrow strip of territory lying along the western coast of the Indian Peninsula, and extending for some 1,050 miles from the south-western frontier of the Punjaub to the borders of Mysore. The Regulation Provinces of Bombay, which form by far the most important of the three political divisions of the Presidency, became British territory at the close of the second Mahratta War of 1817–18, and were at once placed under regulations similar to those introduced into Bengal and Madras by Lord Cornwallis.

For administrative purposes they are divided into two commissionerships, into 17 districts or collectorates, and further, into sub-collectorates and talookas. Sindh is governed on the non-regulation system. Sir Charles Napier completed the conquest of the province in 1844, and was its First Commissioner. The numerous independent native states, which for the most part lie between Sindh and Bombay proper, form the third political division of this Presidency. The total area of the three divisions is, in round numbers, 206,000 square miles, or about that of France. The population of Bombay and Sindh is about 14 millions, and of the native states, about six millions more.

	Area in Square Miles.
Bombay proper - -	81,852
Sindh - - -	52,493
Native States - - -	71,320
TOTAL - - -	205,665

An important feature of this province, compared with the rest of India bordering on the sea, is its irregular coastline and the remarkable capabilities it possesses for the formation of excellent harbours at numerous points. The British Government fully recognises the importance of providing good harbour accommodation in India, and in sanctioning the works which are being carried out for the improvement of Kurrachee Harbour, has evinced its anxiety to supply an acknowledged want. Of the harbour of Bombay and its trade it is unnecessary to speak. At Kurrachee and Carwar the shipping trade is annually on the increase, and, sooner or later, with the advancing requirements of the country, the facilities offered by Poshetra, Sureya, Viziadroog, and many other places scattered up and down the coast, will be turned to the best account.

The present Governor, Sir Seymour Fitzgerald, was appointed in 1866. In matters of administration generally he is assisted by a council of three members, and in framing laws and regulations by a legislative council.

Fifteen Acts passed by the Legislative Council of the Governor General were applicable to Bombay; in addition to which four Acts were passed by the Local Legislature, and came into operation after receiving the consent of the Governor General.

JUDICIAL.

District Courts.

Civil Justice. In the civil courts of the regulation districts 131,964 suits were filed during the year; 128,105 suits were disposed of, and 35,552 remained undisposed of, against 31,944 at the end of 1868–69. The number of suits filed in the Court of Small Causes, Bombay (28,171) exceeded those of 1868–69 by 3,468; the number heard and decided were 27,511, against 24,763, and 2,152 suits remained undecided against 1,492. The value of the property under litigation was 283,114 *l.* against 270,000 *l.* in 1868-69. In the three District Small Courts at Ahmedabad, Poona, and Ahmednuggur, 14,925, suits were instituted. The Belgaum Small Cause Court was abolished and four new courts were opened, at Surat, Broach, Dharwar, and Hooblee. The average cost of suits in these courts was 1 *l.* 1 *s.*, or rather more than the year before.

Small Cause Courts.

District Courts.

Criminal Justice. The returns under this head are for the calendar year 1869, instead of, as hitherto, for the official year. In the Regulation Districts 39,848 offences were committed; 36,573 trials took place; and out of 75,468 prisoners 34,233 were acquitted. Compared with 1868–69, these results are unfavourable.

Police.

Northern Division.

The chief magistrate of police reports the occurrence of 18,136 offences in the town and island of Bombay during 1869, or 2,192 more than in 1868-69; the largest increase occurring under municipal offences. The Commissioner of Police for the northern division of the Regulation Districts represents that the condition of the village police is most unsatisfactory, neutralising the efficiency of the stipendiary force, and making it necessary to keep the latter up to a far greater

BOMBAY.

Southern Division.

strength than would otherwise be required. The re-organisation of the police force of the southern division noticed in last year's report was completed in April 1869. The Commissioner reports an increase in the total number of offences committed in all the districts amounting to an aggregate of nearly 7 per cent.

Gaols.

There was a general increase of the prison population in 1869, which is attributed to the rise in the price of food. The total number confined, including Sind, was 22,912 and the daily average was 6,378, the figures for 1868-69 being 20,445 and 5,948 respectively. The gross cost of maintaining this larger number of prisoners was 65,594 *l.*, but an increase of about 8,000 *l.* in the estimated value of prison labour reduced the amount to 37,748 *l.*, and the net cost per prisoner from about 6 *l.* 14 *s.* to 5 *l.* 18 *s.* 4 *d.* There are schools in all the gaols, but in only three of them are there paid teachers, instruction being carried on in the remainder by convict teachers, and it is stated that upwards of 1,000 prisoners were taught to read and write while undergoing their term of imprisonment. The higher mortality of the year was mainly the result of the weak state of health in which many entered the gaols.

Sind.

Sind is divided into four districts– Kurrachee, Hydrabad, Shikarpoor, and Thurr and Parkur. Out of 17,609 persons who were concerned in 11,426 offences, only 7,784 were convicted. Compared with the wealthier and more litigious Regulation Districts, the civil suits in this province bear a small proportion to the criminal offences, amounting, in the year under review, to 7,968 only or considerably less than one-half the number of the latter. Their value, however, increased from 34,857 *l.* to 46,132 *l.*

Of Aden it is reported that crime greatly diminished, the increase in population notwithstanding, and that trade had returned to a healthy state after a period of speculation which resulted in a large number of failures.

Revenue.

The season was unusually favourable throughout the northern division of the province, but in the southern division the crops were damaged by unseasonable rains. It was found necessary to continue the famine relief works in Khandeish during the greater part of the year, and in Ahmedabad there was some distress owing to the large influx of people from the famine-stricken districts of Rajpootana. The total realisable revenue for the year under the heads of "Land" and "Sayer" was, for the whole province, including Sind, 3,796,373 *l.*, or 107,715 *l.* more than in 1868-69. Customs realised 846,064 *l.*; the falling-off of about 37,000 *l.*, which this represents, being due to a slack trade and smaller exports of spirits from Oorun, Bhandoop, and Bassein, three towns in the neighbourhood of Bombay, where there are distilleries. Salt also showed a falling-off of nearly 39,000 maunds in quantity and 16,180 *l.* in receipts, as compared with 1868-69. The falling-off was due to smaller consumption in consequence of the rate of duty having been raised from 3*s.* to 3 *s.* 7½*d.* per maund. It was with extreme reluctance, and only on account of the existing financial difficulties of the Government of India, that recourse was had to this method of increasing the revenue. The various rates of the duty on salt from their commencement are shown in the margin.

1869-70:	
Maunds.	Duty.
	£.
3,304,742	591,355

	s.	d.
1837 - -	1	–
1844 - -	1	6
1859 - -	2	–
1961 - -	2	6
1865 - -	3	–
1871 - -	3	7½

On the other hand there was a considerable improvement in the opium revenue. The accompanying figures, compared with those of 1868-69, represent an increase of 550,000 *l.* in the amount realised from pass fees, and of 9,177 in the number of chests on which the fees were levied. With the exception of two very exceptional years, 1860-61 and 1862-63, when the number of chests exported to China through the Bombay Custom House was 45,072 and 51,745 respectively, the exports of the year under review were larger than any in the decade. Of the total number of chests, 35,726 came from the States of the Maharajah Holkar of Indore, and the remainder, 3,543 chests, from Ahmedabad. Thus the aggregate realisations in the department of customs, salt, and opium, including some miscellaneous items, amounted to 3,840,526 *l.*, or 453,000 *l.* more than in 1868-69.

1869-70:	
No. of Chests	39,269
Realised from pass fees -	£. 2,357,419

Sind.

With regard to Sind, the value of the imports and exports was 4,157,044 *l.*, or 100,000 *l.* less than in 1868-69, the customs duties on which realised about 45,000 *l.* The falling-off was mainly due to the smaller import of cotton piece goods from the United Kingdom, and the stoppage of the export of grain to foreign parts. There were, on the other hand, large exports of cotton to China and of indigo to the United Kingdom and Bombay. Tea to the value of 15,000 *l.* found its way from Kurrachee to the Central Asia market by the way of the hill route.

The

The large increase of 805,000 *l.* in the receipts of 1869-70, compared with those of the previous year, was chiefly contributed by opium and assessed taxes.

REVENUES AND RECEIPTS.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Land Revenue	3,568,102	18,345	—
Tributes, &c. from Native States	86,671	—	21,657
Forest	123,526	2,177	—
Excise on Spirits and Drugs	446,828	1,014	—
Assessed Taxes	244,684	115,994	—
Customs	846,064	—	36,272
Salt	599,407	—	16,180
Opium	2,357,419	550,694	—
Stamps	466,848	—	3,509
Mint	79,541	—	6,881
Law and Justice	114,930	—	2,856
Police	15,467	2,494	—
Marine	151,498	—	297,013
Education	11,301	—	3,700
Interest	90,125	71,537	—
Miscellaneous	247,848	53,954	—
Army—Miscellaneous	330,223	—	46,656
Public Works—Miscellaneous	118,799	80,024	—
		896,233	434,509
		Net Increase, £. 461,509.	
TOTAL £.	9,899,281		

EXPENDITURE.	1869-70.	Compared with 1868-69. Increase.	Compared with 1868-69. Decrease.
	£.	£.	£.
Refunds and Drawbacks	128,890	35,001	—
Land Revenue	688,715	267,555	—
Forest	54,480	—	8,232
Excise on Spirits and Drugs	55,783	—	17,453
Assessed Taxes	5,266	—	122
Customs	88,483	5,357	—
Salt	34,056	5,173	—
Opium	3,173	628	—
Stamps	20,149	1,486	—
Mint	34,007	—	52
Allowances, &c. under Treaties	701,858	7,786	—
„ to District and Village Officers, &c.	—	—	282,085
Total Direct Claims and Demands on Revenues	1,814,860	322,986	307,944
Administration	177,738	—	1,786
Law and Justice	501,317	40,732	—
Police	390,870	4,489	—
Marine	264,605	—	141,565
Education	112,004	3,069	—
Ecclesiastical	33,598	397	—
Medical Services	117,908	29,674	—
Stationery and Printing	36,530	1,374	—
Political Agencies	120,970	13,568	—
Miscellaneous	134,117	48,205	—
Pensions, &c.	130,735	38	—
Army	2,861,092	—	99,856
Public Works, Ordinary — Public Works	846,125	—	100,343
Public Works, Ordinary — Supervision and Cost of Land for Railways	31,920	—	59,767
Public Works, Ordinary — State Railways	3,831	3,831	—
Public Works, Ordinary — Loss by Exchange	89,539	54,122	—
Interest on Service Funds, &c.	89,492	—	13,108
Public Works—Extraordinary	534,459	53,165	—
£.	8,291,710	575,650	724,369
Surplus	1,607,571		
£.	9,899,281	Net Decrease, £. 148,719.	

The decrease under Tributes was caused by 1868-69 having been credited with what properly belonged to the year under review, and the large falling-off under the head of "Marine" indicated a return to the normal state of things at the conclusion of the Abyssinian Expedition. It has been explained that the Customs receipts here, as at Calcutta, were affected by the general slackness of trade.

With regard to the expenditure side of the account, there was a decrease of about 150,000 *l.* The large decrease under "Marine" was due to the same cause as the smaller receipts under the same head; less was expended on the purchase of Abkaree opium. On the other hand, the increased cost of the maintenance of the prisoners swelled the expenditure under "Law and Justice"; stores to hospitals and dispensaries added about 30,000 *l.* to the "Medical" charges; and the adjustment of a sum, received as tribute, to the credit of a local fund, explains the item of 35,001 *l.* under "Refunds."

The general cash balance at the close of the year amounted to close on 3½ millions sterling, showing the large increase of nearly 1,350,000 *l.*, as compared with that at the close of the previous year; this result being due to the opium revenue and to the receipt of 770,000 *l.*, subscribed to the Four per Cent. loan. The inspection of the office of the Accountant General, by an experienced officer, resulted in a favourable report as to its efficiency.

The principal event of general political interest was the visit of His Royal Highness the Duke of Edinburgh to Bombay, early in March 1870. At the invitation of Sir Seymour Fitzgerald, all the leading chiefs of the Province assembled to meet him, and vied with each other in their expressions of loyalty, and in the

Political.

BOMBAY.

the munificence of their gifts in commemoration of the first arrival of a British Prince among them.

Kattywar.

No less than four of the independent princes of Kattywar died during the year under review. Three of them, the Chiefs of Durraungdra, Moorvee, and Bhownugger, had won the confidence of all classes of their subjects, and were honoured for the ability and justice with which they governed their states. The Raj of Durraungdra was succeeded by his son, but the administration of the other two, and of Gondul, has been temporarily assumed by the British Government during the minority of the young chiefs.

Considerable alarm was caused throughout the province by the invasion of swarms of locusts, which at once disappointed the promise of abundant harvest with which the season opened. By the large import of grain from Persia, however, and by persuading the chiefs not to carry out the injurious policy of prohibiting exports, prices were kept down, and later in the year the bountiful cold weather crops repaired the losses sustained in the rain-crops. The progress of the province is satisfactory. There was a general decrease of crime; greater interest appears to be taken in education; and various public works of utility were completed during the year. In a year when all the chiefs had more or less sustained losses from the ravages of locusts, there was an outlay on their part of nearly 80,000 *l.*, on works of lasting benefit to the country, including the generous donations of five of the chiefs, amounting to 35,000 *l*, set aside to commemorate the visit of the Duke of Edinburgh. Education was represented by 229 schools, or 29 more than in the previous year, and the building of the college at Rajcote was nearly completed.

Rewa Kanta.

Two out of the collection of independent native states, forming Rewa Kanta, are under British management during the minority of their Rajas, who are being educated at Ahmedabad. In these two, Barrea and Loonawarra, the revenues are yearly increasing. In the town of Barrea the streets have been widened and metalled, drained, and lighted; schools have been built, a Public Garden has been opened, and many other useful works have been carried out; education is gradually spreading through the districts which are under the management of their own chiefs. Nothing of importance is reported to have taken place in the

Mahee Kanta.

petty states which make up the district of Mahee Kanta. Eight young chiefs attended the school at Sadra but, on the whole, education makes little progress.

Kutch.

In Kutch, as in Kattywar, the crops were much injured by locusts. To relieve the scarcity that continued to prevail in Rajpootana, the chiefs of this enlightened State again suspended the transit dues on the export of grain. The year, too, was marked by the separation of the judicial from the executive functions, and by the codification of the law.

Pahlunpoor.

The ravages of locusts produced a famine in Pahlunpoor still more severe than that of 1868–69, and the poor were only relieved from the extremity of want by the prompt measures that were taken. The scarcity was intensified by the immigration of large numbers of famine-stricken people from Marwar. The schools are reported to be well attended, and education to be making fair progress. The Conservancy Department, which has been instituted in Pahlunpoor city, and is maintained by the Durbar, has greatly improved the place, and the people are willing to acknowledge the benefits it confers.

Kolhapoor.

Kolhapoor, considered merely with reference to its net revenues, which amount to 100,000 *l.* a year only, is a petty State, but it is of more importance than would appear from the smallness of its income. Its alienated revenues, which amount to nearly 200,000 *l.* a year, are held by subordinate chiefs, Sirdars, Inamdars, and others, over all of whom the Raja exercises a control more or less minute, according to their several circumstances, and the exercise of much firmness, ability, and tact is required in dealing with these persons. Again, its population has always been a difficult one to manage. Formerly, under its own native rulers, there were frequent rebellions within the territory; the Rajas were generally at war with their neighbours, and the Government was always in a state of disorder. The inhabitants are of a bold and independent character, and still possess much of the old Mahratta spirit, which led their ancestors to seek excitement and push their fortunes in the wars formerly prevalent throughout India. The State has, besides, a long roll of landed gentry, with distinguished Mahratta surnames, who are capable, under good guidance, of being trained into useful leaders of local society. The Raja himself is looked up to as

BOMBAY.

as the first of Mahrattas, and his influence, well directed, would be productive of much good, even beyond the limits of his own territory.

For some time before the Rajah left the country on a visit to Europe, he was induced to take a more active part in administrative work, holding cutchery twice every week with Capt. West for the disposal of revenue and judicial business, attending the Political Agent's court occasionally, while important trials were proceeding. Unhappily for his country, and to the great regret of the Supreme Government, and of all who were acquainted with the young prince, the brilliant promise held out by him was destined never to be fulfilled. He died at Florence in November 1870, as he was returning to India. The event was the more to be lamented as following so soon after the death of the Rajah of Kuppurthulla, it may tend to confirm the dislike the natives have to leaving their country, which it was the wish of these two chiefs to overcome. The financial condition of the State continued satisfactory, its assets amounting at the close of 1868–69 to 143,000 *l.* Education showed progress, that of the young Sirdars especially, and boys of better class parents, who are under tuition in the State schools, being well spoken of. Several useful public works were under construction.

Nothing eventful occurred in the Jagheer States in the southern Mahratta country which are under the management of their own chiefs. Education made good progress, and public works received a fair share of attention. In Meeruj and Moodhul, which are temporarily under British management during the minority of their chiefs, a great advance has been made.

Akulkote.

The little district of Akulkote, which has recently been taken under British management in consequence of the misrule which prevailed there, has a population of 66,000. The new rates of assessment, which were introduced experimentally, were well received, and produced a considerable increase to the Land Revenue. The people are manly and independent, and seem anxious to have their children educated.

Sawunt Waree. Jinjeera.

The affairs of Sawunt Waree continued to be satisfactorily administered. In Jinjeera, the jurisdiction in criminal matters has been taken from the chief, and vested in a British officer. This measure was carried out in the interests of the people, and after repeated warnings to the chief. As an instance of the arbitrary nature of his jurisdiction, two cases are brought to notice. In one of them, the prisoner, though convicted of a brutal murder, was sentenced to one year's imprisonment; in the other, two prisoners were sentenced to receive twenty lashes, under which, however, they died.

Aden.

The most arduous duties of the Resident at Aden are connected with his endeavours to preserve peace among the various petty Chiefs and Sultans in the neighbourhood. In the year under review, his relations with them were satisfactory, and many who had never visited Aden before, called to pay their respects. There is a good deal of trade between Aden and the African ports of Berbera and Bulhar. The Egyptians have for some time had the design of taking the two ports under their rule, much against the wish of the Somalees, who are unwilling to part with their country. In British interests also it is undesirable that these ports should become the property of a Power under which the trade between Africa and Aden would be extinguished. Into the troubles that reigned in the Sultanate of Muscat, at Bahrein, and generally throughout the country bordering on the Persian Gulf, it is not within the scope of this Report to enter.

In 1868–69, the expenditure on Public Works, ordinary and extraordinary, from Imperial Funds alone was 1,427,762 *l.* In the year under review, the total expenditure was 1,380,584 *l.*, of which a part was contributed by Local Funds. The cost of "Establishment," excluding "Tools and Plant," was 230,000 *l.*, or about 18·31 per cent. on the expenditure. It is unnecessary to describe in detail the progress made during the year in the very numerous works under construction in the Presidency, the most important of which were noticed in last year's Report. It is sufficient to say that the various military buildings and fortifications at Bombay, Aden, and elsewhere, the fine public buildings at Bombay, which when completed will worthily represent the city's position and importance, the Moota Valley Project, the Ekrook Tank, and other agricultural works, roads, and all the numerous items included under the head of Public Works; that they, each and every one, were vigorously carried on towards completion, with the reduced

	£.
Ordinary Expenditure:	
Military	280,097
Agricultural	83,544
Civil Buildings	126,945
Communications	179,753
Miscellaneous	32,501
Establishment, &c.	200,284
Total £.	903,124
Special Fund Expenditure	346,902
Extraordinary Expenditure:	
Irrigation	115,987
Establishment, &c.	14,571
Grand Total £.	1,380,584

BOMBAY.

reduced grants to which Bombay, in common with the rest of India, had to submit.

EDUCATION.

Mr. J. B. Peile, the Director of Public Instruction, in his annual Report says: "The present year (1870) is an epoch in the history of education in this Presidency. It is just 30 years since public instruction was placed under systematic control; of that period it has been superintended for 15 years by a Board of Education, and for 15 years by a director of public instruction. The Board of Education began its work in 1840 with 159 schools and 6,702 pupils. In March 1855 it had charge of 267 colleges and schools, with 21,748 pupils, for the support of which it administered 19,414 *l.* of public money, and 4,345 *l.* of fees and endowments. The corresponding figures for 1870, viz., 2,717 colleges and schools, and 167,904 pupils, educated at a cost of 89,157 *l.* to the State, and a local contribution of 91,731 *l.* passing through the hands of the Educational Department, and 47,628 *l.* the private expenditure on aided schools, show a general result with which it would be unreasonable to be dissatisfied. Since 1855 the system has been crowned by the establishment of the university (in 1859) which exercises a most remarkable influence throughout Western India. Its distinctions might have been the privilege of the wealthy, or the monopoly of a select school; but they are neither. A university degree is the central object of all educational ambition, the prize for which poor scholars are content to endure great privations; and yet with all this progress to acknowledge, it is impossible to indulge in much elation, while the total number of the youth of Western India under instruction has only advanced from a little less to a little more than one per cent. of the population; a proportion not to be named with that attained by the nations of Europe, and even by English settlements of much more recent origin than British ascendancy in this continent." For instance, Victoria, with a population of 700,000, or about that of one Bombay collectorate, spends 130,000 *l.* per annum on education. There are 834 schools and 119,645 children in them, no township or village of any importance being without its schoolhouse.

The territory of which the public instruction is administered by the Bombay Government, extends from the north of Sind to the south of the district of Canara, from the frontier of the Punjab and Beloochistan to the north-western limits of Mysore and Madras. The languages taught include Sindhi, Gujrathi and Marathi; for the Mahomedan schools Hindustani has to be provided; in the southern districts Canarese is spoken, and purer Dravidian in Dhanoar and Canara; if to these are added a Semitic element, in the Hebrew of the Jewish population of Bombay and the Arabic of Aden, it will readily be understood that instruction in so many languages and dialects is given at greater cost and pains than if one grammar and vocabulary existed throughout.

The Bombay Presidency has an area of about 206,000 square miles, and a population of rather more than 20 millions, and the territory included in it is partly under British Government, partly under its own native rulers. In the former case we administer education, in the latter we recommend and encourage it. The education provided by native princes will not exceed the education in British districts to which they will look for a model. As is the latter, such at best we may expect that the former will be. The Government and peculiar circumstances of Sind assimilate it in educational matters to the political agencies.

	Sq. Miles.	Population.
Sind and Native States	123,813	8,555,684
British Districts (17)	81,852	11,854,510

The support and control of education are chiefly administered by the State, and through the following means:—

1stly. By a public department for the direction and inspection of education.

2ndly. By the examinations and degrees of the universities, and by a State system of colleges and higher schools.

3rdly. By grants-in-aid or supplementary grants to private colleges and schools.

4thly. By the administration of primary instruction.

The expenditure on education in 1869-70 was 180,888 *l.*; and divided into 18 parts, it was distributed in the proportion of about two to direction and inspection, two to colleges, three to higher schools, 8½ to vernacular instruction, one to grants-in-aid, one to buildings, and half to literary purposes.

This

This total expenditure of 180,888 *l.*, shows an increase of 6,652 *l.* over that of 1868-69, while the total number of schools (2,717) and scholars (167,904) shows the net increase shown in the margin. It will be seen that the increase was almost entirely in the Government institutions, which numbered 2,494; and here again the increase was under one head, the lower class schools, which rose from 1881 to 2,151 in 1869-70.

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	Schools.	Scholars.
Government Institutions -	284	12,349
Aided Institutions - -	4	572
Police and gaol schools brought under inspection - - - -	9	187
	297	13,108
Deduct,— Decrease in inspected institutions - - -	30	2,665
Net Increase - -	267	10,443

Speaking of primary instruction, Mr. Peile says, "Whatever doubts may be raised as to the reach and object of higher education, there can be no question about the simple elements of primary instruction; for common sense can easily regulate the scope of our teaching of the masses, and forethought and judicious training can send out competent teachers as they are required; but the fiscal side of the question seems to call for prompt, bold, and large administration. Of every million of population returned by the Census, it is certain that at least one-twelfth are children who might be in primary schools if schools existed; and unless the conclusions long accepted in Scotland, America, or Germany can be proved inapplicable to India, it is the duty of the Government to see that sufficient schools are provided. The scale of this work is too vast to be entrusted either to aided private enterprise or the zeal of an inspecting staff. The not unimportant advance made in the last five years is entirely due to the levy of a rate assessed upon the land-tax and legalised by an Act passed in 1869. The Bombay Local Funds Act, however, has laid the basis of a suitable system of primary schools for only half of the people; for the other half, not rateable through the land-tax, no basis has yet been laid."

And Mr. Peile would thus limit the system of grants-in-aid: "If when the Government has laid by law the basis of an adequate system of primary schools, has settled how the funds shall be raised, what shall be the scope of the teaching, and how the schools shall be managed, inspected, and officered, it finds available any competent managing bodies, such as the municipalities of towns, a subsidy of public money may very properly be granted to such managers on the system of payment by results: but grants-in-aid will neither create nor improve the ordinary village schools, devoid of any managing agency, and scattered over a vast area. These Government must establish first, and manage afterwards, immediately and entirely."

Bombay Cotton Department.

The results of the year 1869-70 illustrate the futility of attempting, at an early period of the season, to form any reliable estimate of the amount of produce that the crop will yield, even though the area of land under cultivation can be accurately ascertained. The cultivator's hopes rest entirely upon the weather; he may escape drought, the evil most dreaded, only to see his ripened crops ruined by an unexpected rainfall, as was the case in the year under review. It was expected that the out-turn, estimated by the increased area under cultivation, and the season's favourable commencement, would reach the unusually large amount of two millions of bales, whereas, owing to an unprecedented failure of the finest cotton districts, which in some instances barely yielded a fraction of the supply expected from them, the out-turn was worse than moderate, besides being a late one.

The area of land under cotton cultivation in the Bombay Presidency (including the native states), was 4,544,702 acres, or 1,100,419 more than in 1868-69, the increase being pretty equally distributed over the whole country; the out-turn amounted to 1½ million bales. The exports from Bombay amounted to 1,017,290 bales, showing a falling off of 105,000; but it was thought at the time the Report was written, that a considerable quantity of cotton still remained in the country. The total number of cotton gins worked by steam power was 1,341, against 1,288 in the year before; and there were 475 presses, of which 1,869 were worked by steam power.

The results of experimental cotton cultivation were various; and the partial failures were owing in some measure to the exceptional weather. The soil and climate of Guzerat are proved to be unsuitable to the cultivation of exotic cotton; and future experiments there will be confined to ascertaining the best means of improving the indigenous description of the staple.

BOMBAY.

Indo-European Telegraph Department.

The line between Kurrachee and Bushire was doubled by the submersion of a second cable between Jashk and Bushire, a distance of 500 miles, and by the extension of the Mekran land line to Jashk from Guadur, a distance of 330 miles. The opening of the Indo-European Company's direct line from Teheran to London *viâ* Russia has very much improved the through working; but although the number of messages has greatly increased, the receipts show an actual falling off owing to the proportion received for each message by this section being smaller than for messages *viâ* Turkey. The competition has further improved the working of the Turkish lines. The opening of the Red Sea Line was the third event which affected the Indo-European Telegraph Department in the year 1869–70. It is anticipated that with the increased traffic that will probably result from improved communication, the falling-off in the receipts, owing to competition, will not be so serious as was at first apprehended.

Persian Gulf Trade.

An interesting report has been received from Colonel Pelly, the Resident in the Persian Gulf, showing the rapid development that has taken place in the trade between the ports of India and the Gulfs of Oman and Persia. Nine years ago no mercantile steamer ran in the Persian Gulf, but in the interval the British India Steam Navigation Company have established a regular service of steamers between Bombay and Bushire, and trading steamers have continued to increase in number and tonnage. In June 1870 arrived the first steamer coming direct from England *viâ* the Suez Canal, and during the last year a Turkish line of steamers has commenced running between Constantinople and Bussorah by way of the canal, and an English company has started a service between London and the Gulf by the same route; moreover, steamers belonging to two Persian companies, and sailing under the protection of the British flag, ply between the Gulf and British India, and the British India Steam Navigation Company which during 1869-70 ran their large steamers fortnightly, were contemplating a weekly service.

The gross value of the trade passing up and down the Gulfs of Persia and Oman may be fairly estimated at nearly six millions sterling, of which four millions belong to the trade with Bombay, Calcutta, and Kurrachee alone, Bombay having the lion's share; and the remainder, about 1,780,000 *l.* to the trade with other ports. The value of the trade with Bombay was 792,460 *l.* in 1844-45, and reached its climax of 3,443,740 *l.* in 1865-66, the highest year of the American war. The conclusion of that war sent the cotton trade back to its normal state, and the successive disturbances which have taken place during the last five years on the Arabian coast have acted injuriously on trade; but Colonel Pelly thinks it may be assumed that under ordinary circumstances there would have been a steady increase. There was the large increase of nearly 1,000 chests in the quantity of opium exported from Bushire and Bunder Abbass in the year 1869 for the Chinese market. The Persian chest weighs one pecul or 136 lbs., and its average value is 120 *l.*; so that the value of the opium shipped in 1869 was 304,800 *l.*

1868 - 1,545 chests.
1869 - 2,540 „

APPENDIX.

The Indian Surveys.

The Indian Surveys.

By the authority of the Secretary of State for India, a memoir on the Indian Surveys has recently been published, which furnishes a general view of all the surveying and other geographical operations in India from their first commencement to the conclusion of the year 1869-70. The work, written by Mr. Clements Markham, is divided into seventeen Sections, and deals with the following subjects:—*The Indian Marine Surveys, the Great Trigonometrical Survey, the Revenue Surveys, the Topographical, the Geological,* and the *Archæological Surveys, Meteorological, Tidal, and Astronomical Observations,* and the *Physical Geography of India.* Each subject is dealt with in the fullest and most complete manner, and the work, besides being interesting to all lovers of science, will be specially useful to Indian surveyors, serving as a text book, and containing a vast amount of information, gathered from official and other sources, to most persons unattainable. Foot notes supply references to the authorities that have been consulted.

Marine surveys.

The marine surveys preceded the land surveys by 200 years, and it was not till the battle of Plassey that Major Rennel was able to commence that series of route surveys which has made his name famous. At the beginning of the present century the system of route surveying was superseded by the more scientific trigonometrical method of Colonel Lambton, whose labours were carried on by Everest, Waugh, Thuillier, and Walker.

In the following account of the progress made during the year under review in the several branches of science connected with the geography of India, the official abstract of the reports of the surveying officers has been made use of, the limits of this Report necessitating its curtailment in matters of detail.

In 1869-70 local requirements, both on the east and west sides of India, led to the execution of some surveys of very limited extent, and the history of Indian marine surveying did not present the same absolute blank which has characterised all previous years since the abolition of the Indian navy. During the famine in Orissa the want of charts for that part of the coast was seriously felt, and in the season of 1869-70 this want was supplied. The various creeks and harbours in Orissa, the mouths of the Mahanuddy and Jumboo, and the coast in the vicinity of False Point were surveyed. A new survey of the coast of Chittagong was also completed. The frequent complaints, on the part of the captains of the British India Steam Navigation Company, of the scanty charts of the Persian Gulf, led the Bombay Government to depute a party for the survey of the reefs and channels between Bahrein Island and El Katiff, on the mainland, in the S.W. corner of the Persian Gulf. The wreck charts received for the year 1867 give 33 as the number of vessels wrecked in that year, against 27 in 1866; but this can only allude to square-rigged vessels and cannot include the losses incurred among smaller coasting craft.

The Secretary of State has in a recent Despatch requested the Government of India to take the whole question of marine surveys into consideration, and to furnish him with their opinion and with suggestions on the best means of placing them on an efficient footing. The great ocean and coasting trade of India renders the provision of accurate charts, on adequate scales, a very important part of the duty of the Government, and the adoption of effective measures for securing the due execution and continual revision of marine surveys and charts has now become a necessity.

Great trigonometrical survey.

The great trigonometrical survey was proceeded with in five series, during the season of 1869-70, and the completed work is represented by 73 principal triangles covering 11,555 square miles. The British Burmah series, which was the most expensive, was suspended.

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The Brahmaputra series, on the meridian of 90°, which is intended to complete a basis for the surveys of Nuddea, Jessore, and Dacca, was carried forward for 56 miles under Lieut. Thuillier. Mr. Shelverton carried on towards the coast the continuation of the Bombay longitudinal series from the Beder base line to the Vizagapatam base, working chiefly in the densely wooded and malarious valley of the Godavery. Five of the party died, and Mr. Shelverton was struck down by fever. He recovered sufficiently to resume his labours, and gallantly remained at his post, but a relapse coming on he died a few weeks later. The Belaspur series, on the meridian of 82°, is intended to form a basis for the survey of the country between the parallels of Calcutta and Bombay was commenced during the season by Mr. Keelan, and carried southwards for a direct distance of 95 miles. The Bangalore Meridional Series, a revision of Colonel Lambton's work, is divided into two sections. The northern section, under Lieut. Rogers, was advanced 65 miles, and the southern one, under Major Branfill, was pushed forward 75 miles. The topographical survey of Kumaon and British Gurhwal, under Major Montgomerie, made good progress across mountainous country, where the stations were from 12,000 to 17,000 feet above the sea. The new hill sanitarium at Ranikhet was triangulated and sketched on a scale of 12 inches to the mile. The topographical survey of the south-east part of Kattiwar, under Lieut. Trotter, was continued as far as Diu, and the Guzerat survey was commenced under Colonel Nasmyth.

Pendulum observations.

Major Basevi having completed, in 1868-69, a series of pendulum observations on the great meridional arc, commenced another series of observations on the coast, selecting positions in nearly the same latitudes as the inland stations, and far from the disturbing influence of mountain ranges. He had a station also at Minicoy Island. His observations established the fact that gravity on the coast was greater than inland, and at the ocean station greater than on the coast.

The revenue survey.

The Revenue surveys are divided into the upper and lower circles, besides those for Madras and Bombay. The upper circle, under Colonel Vanrenen, included 10 parties during the season of 1869-70, in the Central Provinces, Oudh, the North West Provinces, Punjab, and Sindh. An area of 14,494 square miles was surveyed at a cost of 51,102 *l.* or 3 *l.* 10 *s.* per square mile. The lower circle, under Major Macdonald, consisted of parties in Howgong, Luckinopore, Hooghley, Cooch Behar, Hazareebagh, Leehsaugor, and British Burmah. An area of 6,560 square miles was surveyed at a cost of 33,273 *l.* The total work done in the upper and lower circles during the season of 1869-70 was 21,054 square miles, at a cost of 84,376 *l.* Colonel Johnstone, in carrying out the Peshawur survey, went beyond the British frontier, explored the Kohat Pass, and corrected some errors that existed in the old maps. He got on very well with the robber tribes, whose hearts warmed to the Colonel when, on one of them asking him the meaning of his crest, "the flying spur," he told them the old border story, and when they thus discovered that his ancestors were British Afreedees. In Raepore the work carried the survey through a pestilential country, where not one of the party escaped fever. The recent surveys have revealed the fact of physical changes having taken place in Cooch Behar, several rivers having changed their courses during the last 12 years.

Colonel Ternan has written a historical, geographical, and statistical Report of the Jaloun district of the North West Provinces. It contains a sketch of the early history of the region round Calpee, including the campaign of Baber in 1528, the Pindaree war of 1817, and the operations of Sir Hugh Rose, in 1857; an account of the administration of the district since 1832, and details respecting its topography, meteorology, and agriculture.

The topographical survey.

The topographical survey is a cheap and rapid system of survey adapted for unremunerative and generally unhealthy and hilly regions which are thinly populated, and where, therefore, elaborate revenue surveys are unnecessary; on the same method, the Native states are mapped. During the season of 1869-70 seven parties were in the field:—

1. In Gwalior and Central India, under Lieut. C. Strahan.
2. In the Central Provinces, under Mr. Girdlestone.
3. In the Vizagapatam Hills, under Colonel Saxton.
4. In Chota Nagpore, under Lieut. Sale.

5. In

5. In Bundelcund under Captain Riddell.
6. In Khasia and the Garrow Hills under Major Godwin Austen.
7. In Rajpootana, under Captain G. Strahan.

All these districts were previously either unmapped, or represented only by very old and imperfect sketches. The total area topographically surveyed was 16,135 square miles, besides 13,318 of advanced skeleton triangulation, the cost being 35,440 *l.*, of which 4,614 *l.* was for carriage and clearing jungles.

Not the least interesting portion of the general reports, of which this is an abstract, are the separate reports of the survey officers which accompany them, and frequently contain much that is valuable on the history,of ethnology, &c. the districts through which they pass. Mr. Scanlen drew up an interesting not on the Bharias, a Gond tribe. Colonel Saxton's labours in the Ganjam agency took him among tribes which had never before allowed strangers to enter their country. He describes the hills as being cultivated to their summits (3,500 feet) by means of terraces, supported by stone revetments, and he adds that these terraces are built by women who all smoke tobacco while at work.

The means taken for engraving the Indian atlas in the Surveyor General's Office at Calcutta have been successful. The quarter sheets issued during the year, the first ever engraved in India, are excellent, the work bearing comparison with work produced in England.

In the lithographic branch of the office, as many as 419 maps, plans, and diagrams were drawn, from which 101,610 impressions were taken. Great progress was made in training natives to draw on stone. Photozincography has greatly assisted the speedy publication of the results of the surveys in progress. As many as 60,116 copies of maps and plans were taken by this process during the year, of which 18,000 were issued to Government officials up to the end of December 1870.

The geological survey.

Though the staff of the geological survey was much below its proper strength, considerable progress was made during the year in the examination of the country. This survey labours under great difficulties. Geologists are frequently compelled to remain camped for days in the unhealthiest and most inaccessible parts of the country. The mortality among the staff is consequently great, and the risk is considered by the insurance offices such that they declare no premium whatever would cover it, and refuse to insure the lives of officers of the survey. To fill up the places of competent men is most difficult. There is no source in India from which qualified assistants can be obtained; they must be sought for in Europe, where, however, an able geologist is at no loss for employment, and few can be found to venture to face the hardships and perils of a geologist's life in India.

Mr. Medlicott was enabled in the early part of 1869 to make a careful examination of the coal fields near Mopani, in the Nerbudda Valley, which the progress of railway communication, the opening out of the line in the Nerbudda Valley, and the general increase in the demand for fuel, rendered so immediately important. It is intended to carry on the careful examination of all the country which affords the least prospect of yielding coal or other valuable minerals in that neighbourhood, as the topographical maps become available.

Mr. Ball proceeded to the south of the Chota Nágpúr country and Sirgujah, to determine as accurately as possible the boundaries of the extensive spread of coal-bearing rocks which there occur. Progress in these districts is unavoidably slower than elsewhere, much of the country being without roads of any kind and accessible only with elephants.

Mr. Mallet resumed the examination of the southern parts of Mirzapúr and the adjoining parts of Rewah in the same valley, which are said to be rich in mineral.

In Madras Mr. Foote completed the geological mapping of a considerable area of country, stretching along the valley of the Upper Kistna and adjoining area, his object being to determine the outline of the Great Deccan trap rocks, which have overflowed all the earlier formations, and covered them with a thick and nearly continuous spread of old volcanic lavas and muds, and also to fix the general boundary of the immense area of fundamental gneissic rocks which constitute the basement rocks of everything else. Between these two, various series of rocks crop out irregularly, which it is important to determine; and although

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although no traces of coal-bearing rocks have hitherto been discovered in this south-western corner of the great trap field, there appears no sufficient reason why they should not there exist as well in the Nerbudda Valley as in the north-east.

At the commencement of 1869, Mr. Blanford was engaged in the detailed examination of the Berars and the Chanda district, and subsequently proceeded to visit and obtain a general idea of the extent and value of the coal-fields, which had for more than 30 years been known to exist in Bilaspur, near Korba. He satisfied himself of the existence of very thick and very extensive beds of coal, yielding fuel of fair quality in abundance and covering a large area. He also traced out the continuance of the same rocks with coal far to the eastward and in the country lying between Korba and Rauclir, in Oodeypore, Jushpur, &c. In this neighbourhood Mr. Blanford determined the probability of the existence of a good vein of lead and copper ore below the surface. All this country is, however, at present, so difficult of access, and so entirely without the means of communication with adjoining districts, that no extensive works for the production of minerals could be undertaken with any prospect of success.

Mr. Hughes was engaged during the year in a careful examination of the coal-bearing rocks of East Berar and Chanda, and made most successful progress in tracing out the continuous extension of the thick beds of coal close up to the northern extremity of the East Berar district. The northernmost point where the borings discovered the existence of coal was close by the village of Suini, near the River Wurdha, and about 35 miles from the Wurdha station of the Great Indian Peninsula Railway. Thus the continuance in almost unbroken extension, and in thick beds, at no point more than 70 yards from the surface, of coal easily accessible and abundant throughout almost the entire length of the Woon district in East Berar, along the valley of the Wurdha, has been thoroughly established in a portion of one season's work.

These operations sufficiently testify to the labours of the members of the Geological Survey of India, and of their chief, Dr. Oldham.

The "Records of the Geological Survey" are published at intervals, and contain much valuable information on the structure of the country. In them will be found full accounts of much that has here been briefly referred to.

Archæological survey.

General Cunningham left England at the end of 1870, to preside over the archæological investigations in India, and we may look forward to the receipt of his first report next year. His instructions were first to prepare a summary of the labours of former inquirers, and of the results obtained, and then to draw up a general scheme of systematic inquiry for the guidance of his staff of assistants.

Meteorology.

Of recent years considerable attention has been given to determining, with accuracy, the rainfall of India, and the efforts of the scientific officers interested in meteorology are being devoted to the introduction of a more systematic treatment of the subject than has hitherto been attempted. The observation of the rainfall of Bengal is conducted by Mr. Blanford; he classifies his stations in 10 groups; four in Eastern Bengal, three in Central Bengal, and three in Berar and Orissa. In Madras, new and accurate rain gauges have been supplied to 216 Revenue Stations. The Meteorological Establishment in this Province has now been in existence for two years, under the charge of Mr. Pogson, and is in fair working order. Mr. Chambers, the superintendent of the Government observatory at Colaba, has submitted a report describing in detail the existing arrangements for the record of meteorological observations in the Bombay Presidency, and offering suggestions for their improvement and extension. His suggestions are generally in accord with those of a writer in the Calcutta Review for April 1871, who, after stating his opinion that our knowledge of meteorology in India is actually but little in advance of its condition 20 years ago, condemns the present system of having an independent reporter in each Government to carry out a scheme without reference to any general plan; and points out the necessity for concentrating the management in the hands of one qualified chief, in order to remove most of the causes of imperfection and failure. Such a director or superintendent would be for the whole of India, and would bring together and discuss results. The reviewer ends by pointing out the great importance of India as a region of meteorological observations. The important journey of the Mirza

Geographical exploration.

into Central Asia in 1868-69, which was briefly noticed last year, is described more fully in a report by Major Montgomerie, with whom rests the credit of originating

and

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and carrying out the plan for exploring beyond the British frontier by means of Asiatics. The Mirza followed the route of Lieutenant Wood, the discoverer of the Sirikul source of the Oxus, until he came to the two branches of that river near Punja, the more northerly of which was taken by Wood. The Mirza took the southern branch, and reached the water parting of the Pamir Steppe between Wakhan and Eastern Turkistan; here he discovered the source of this southern branch of the Oxus in a small frozen lake called Pamir-Kul, about 13,300 feet above the sea. The water-parting to the eastward is close to the lake, and the Mirza, after long marches, found himself at Tashkurgan the capital of Sirikul. Thence, after very trying marches, he advanced to Kashgar; and he returned to India by Yarkand and the Karakorum Pass. He carried a route survey from Cabul to Kashgar, the bearings being taken with a prismatic compass, and the distances measured by pacing. This most important journey furnished Major Montgomerie with additional data for the discussion of several questions in the geography of Central Asia, such as the positions of Kashgar and Yarkand, and the direction of the Pamir water-parting. The new portion of the Mirza's route, between Punja and Yarkand, accounts approximately for the geography of about 18,000 square miles of hitherto totally unexplored country. The total length of his route was 2,179 miles, and it is tested by 48 latitude observations at 14 places; about 340 miles being entirely new ground. Other explorations were carried out by Mr. Shaw, in the country lying between the old and the new routes from Yarkand to Ladak, by Captain Miles and M. Werner Munzinger, C.B., in the interior of Yemen; and by Lieutenant St. John, R.E., in Persia. Captain Carter was sent into the Peshawur district to take observations of all the prominent peaks in sight, of which he fixed 171 points beyond British territory, and determined the heights of 140.

INLAND CUSTOMS DEPARTMENT.

INLAND CUSTOMS DEPARTMENT.

Important changes took place in the Inland Customs Department during the year under review. It was enlarged by the amalgamation with it of the Punjab bT Customs; and the line, as constituted at the close of 1869-70, extended from Searla, near where the Indus debouches from the Himalayas, to the borders of the tributary mehals near Boad on the Mahanuddee, a distance of 2,504 miles. This vast line is, as the crowflies, guarded by 10,360 officers and men, and yields a direct revenue of little short of a million and a quarter sterling. It is divided into 110 beats, and watched from 1,727 guard posts. A perfect system of patrolling exists, and, except in some very wild portions of the Central Provinces where tigers bar the way, goes on with unabated vigilance night and day. The men are aided in preventing the passage of contraband goods by a barrier which, in its most perfect form, is utterly impassable to man or beast. This consists, as a rule, of a hedge from 10 to 14 feet high and 6 to 12 feet thick, composed of closely clipped thorny trees and shrubs. Where the nature of the soil prevents the growth of a live hedge, a dry one is substituted if the materials for its construction are available. The live hedge, though for the first few years entailing an inconceivable amount of labour, can, when once reared, take care of itself; but the dry hedge, a prey to white ants, jungle flies, and whirlwinds, is a constant and ceaseless source of trouble.

Next in importance to the amalgamation of the Punjab with the Inand Customs Department is the transfer to the British Government, by treaty with the Maharajahs of Jeypore and Jodhpore, of the right of manufacturing salt in the districts bordering on the Sambhur Salt Lake. The charge of that half of the lake, which belonged jointly to the two Maharajahs, was assumed in February 1870, and arrangements were made for the other half, belonging to the Maharajah of Jodhpore, being taken over in October 1870. It will not be uninteresting here to give a short description of the Sambhur Lake, and the native methods of obtaining the salt. The lake, according to Mr. Hume, in his report for 1867-68, is for the most part, a shallow sheet of water, extending sometimes, in the height of the rain, to a length of 18 miles, with a breadth varying in places from 10 to three miles, and contracting in extremely dry and hot summers to a pool little more than a mile in length and less than half this in width. Its longer axis runs

INLAND CUSTOMS DEPARTMENT.

nearly east and west, and near the centre, where a bold rocky promontory (Mata-Ka Devee) from about the middle of the southern shore runs out into the lake, is the deepest portion, which never dries up, and is called locally the "treasury." The whole of the eastern shore and the southern shore, as far west as Mata-Ka Devee, belonged to the States of Jeypore and Jodhpore in partnership. This portion includes the town of Sambhur itself. The rest of the shores of the lake were owned by the State of Jodhpore, which has on the northern shore two famous salt depôts, Godha and Nabha. Salt can only be made where the bed of the lake and its shores are clay; where they are sandy, as on the southern shore, west of Mata-Ka-Devee, and on most of the western shores, the brine percolates through the soil.

There are three ways of obtaining the salt; one is by means of permanent pans constructed of piles, and resembling coffer-dams. Into these the water is admitted by a sluice to the depth of one or two feet; evaporation takes place, the salt is removed, and the same process is repeated as long as the level of the lake remains higher than the sluice. The pans are four in number, two being at Sambhur, one at Godha, and one at Nabha; the area of the lake's bed enclosed by them varies. One of these at Sambhur is three acres in extent, and in a good season the yield of salt is about 42 tons per acre. The second method is this: all over the shallow eastern end of the lake, and, in a minor degree, towards Nabha and Godha, multitudes of rectangular plots of the lake's bed are enclosed by low ridges mostly formed by double rows of pegs, with clay and straw filled in between. Here the water is retained for evaporation instead of receding, with the dry weather, to the centre of the lake. There are some hundreds of these enclosures, varying in area from one to 10 acres, but salt is not formed in all of them. When the lake is high the outermost form salt, while the innermost never become dry; on the other hand, in years when the lake is low, the water never reaches the outer parts, and evaporation takes place in the inner ones only. The yield of salt so procured varies very much, but the average may be said to be 28 tons per acre. The third method is simple enough; receding towards the centre of the lake, the brine becomes more and more highly concentrated, until at last, over the "khazana," especially in dry, hot years, a thick, unbroken, white crust of salt is formed, so hard when dry as to bear a horse's hoofs, and to need pickaxes to break it up. The quantity of salt thus produced, Mr. Hume says, is incredible. The salt is collected by men, women, and children, and when not bought at once is stored above high-water mark in huge conical heaps, which, when thoroughly dry, form into a compact rock-like mass, which even the rains in no way injure. The net average quantity of salt extracted at Sambhur, &c, the portion which belonged to Jeypore and Jodhpore jointly, may be reckoned at about 16,000 tons, and its cost price to the trader, exclusive of transit dues, &c. levied by the Jeypore State, was 1 *s.* 1½ *d.* per maund of 80 lbs.

Up to the date at which the Report for 1869-70 was closed, the results of the transfer had been very satisfactory, and the arrangement promised to be beneficial alike to the Native States concerned, and the British Government.

Salt.

The total supplies of salt from all sources that appear to have found their way into consumption by the population within the line appear to have slightly exceeded half a million of tons (515,527 tons); of this, 481,732 tons, or about 93 per cent., was taxed, and 33,795, or about 7 per cent. escaped duty. There was a marked decrease in the quantity of Cheshire salt landed at Calcutta, viz., from 6,448,309 maunds in 1868-69 to 5,924,489 in 1869-70, but this was due not to any contraction in the area of its consumption, but to the market having been over stocked. On the contrary, the actual deliveries of Liverpool salt have increased steadily from 3,898,530 maunds in 1866-67 to 5,517,253 maunds in the year under review. Excluding Bengal, it is calculated that the average consumption of salt by the population of the rest of Northern and Central India, within the Customs line, assumed at 68,600,000, amounted to 7·12 per head, and that its average cost was 1·65 *d.* per pound. This calculation of course excludes the salt used for cattle.

	Tons.
Punjab Mines - - - -	53,733
Imported across the Line - -	141,421
Paid duty to internal debt -	634
Imported or manufactured in Bengal.	285,944
Untaxed - - - - -	33,795
TOTAL - -	515,527

The gross revenue of the department was 1,626,702 *l.*, of which the Cis-Indus salt mines yielded 449,254 *l.*, the various Customs lines, 1,167,609 *l.*, and the Internal department 9,828 *l.* It is of course from salt that the bulk of the realisations

sations were derived. This yielded 1,492,093 *l.*; sugar contributed 124,848 *l.*; and miscellaneous items brought in 9,761 *l.* The total charges of the department amounted to 199,063 *l.*, so that the net receipts were 1,427,639 *l.*

INLAND CUSTOMS DEPARTMENT.

The recent Trans-Himalayan explorations have revealed the sources whence the Thibetian salt imported into Lahoul, Spiti, Kumaon, &c., is derived. South of Rudok, it appears, there is a large salt lake known as the Rawan-chaka, and further eastwards is the celebrated Chak-chaka salt lake. Other similar lakes were heard of further to the east; and, indeed, from the nature of the surrounding country, and the remains of salt beds, it is evident that salt water at one time covered wide areas round the lakes.

India Office,
12 May 1871.

W. NEVILLE STURT.

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

DURING THE YEAR 1870-71.

(Presented pursuant to Act.)

Ordered to be printed, 11th June 1872.

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA, DURING THE YEAR 1870–71.

Introduction.

The year 1870–71, of which the following Report forms a record, may be regarded with much satisfaction in its bearing on the material prosperity of the people of India. A fair and seasonable rainfall was general throughout, and with the exception of the western portion of Rajpootana the recovery from the effects of the scarcity may be said to be complete. A plentiful harvest was accompanied by a fall in the price of food, the happy effect of which was visible in the reduction observable in the criminal statistics. The general prosperity was also marked by a large increase, especially in the Punjab, in the amount of civil litigation, the greater number of the suits being for the recovery of small sums of money, advanced probably during the time of scarcity.

Not the least interesting portion of the Report for the year is that relating to the Native States included within the Rajpootana and Central India agencies, as well as those whose relations are immediately with the Government of Bombay. It will be seen that, with some exceptions, these backward, and once turbulent portions of India are gradually yielding to the influence of the long era of tranquillity which they owe to the control exercised by the paramount power; and that the spirit of the age and the prudent counsels of the agents to the Governor General, and the other political officers resident at their Courts, are awakening the chiefs to an intelligence of the true principles of government and to a greater appreciation of the welfare of their subjects. It will be, to many who are not acquainted with the fact, a matter of surprise to learn in how many instances the Native States have the good fortune to possess native ministers of great ability and integrity, who by the constancy with which they pursue an enlightened policy, in spite of the greatest obstacles, shed a lustre on the Indian name. In the midst of difficulties, however, arising from the apathy of the prince or the people, the minister can always rely upon the support of the British Resident, and it is needless to say that his services are cordially appreciated by the British Government, who have in many cases marked their appreciation by the bestowal of the order of the Star of India.

Towards the close of 1870 the late Lord Mayo visited Ajmere and held a Durbar, at which there was a gathering of a larger number of the princes and chiefs of Rajpootana than had ever met before peacefully. Much good must result from this breaking down of the barrier of exclusiveness, which had hitherto kept the Rajpootana chiefs apart. But in addition to the fellow-feeling which this meeting established among them they could not fail to be struck by the sincere interest in their welfare evinced by Lord Mayo, whose speech to them abounded in kindly feeling and practical advice. The expression on his part of a wish to see a college founded for the education and physical training of their sons was followed by a subscription of as much as 70,000*l.* to promote the undertaking.

Turning to the question of finance, it will be seen from the accompanying statement that the revenue and receipts in 1870–71, in India and in England, amounted to 51,413,686*l.*, exceeding those of 1869–70 by 512,605*l.* The expenditure during the same period amounted to 49,930,696*l.*, or 611,870*l.* less than in the preceding year; so that the net result of 1870–71 was an improvement of 1,387,678*l.* over that of 1869–70, of which 961,801*l.* was due to the increase of the income tax.

Revenues and Receipts.	1870–71.	Compared with 1869–70.		Expenditure.	1870–71.	Compared with 1869–70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land Revenue	20,622,823	—	465,196	Interest on Funded and Unfunded Debt	2,960,130	186,716	—
Tributes and Contributions from Native States	719,421	—	45,705	Interest on Service Funds and other Accounts	530,491	—	96,776
Forest	453,442	—	18,148	Allowances, Refunds, and Drawbacks	356,481	—	108,663
Excise on Spirits and Drugs	2,374,465	120,810	—	Land Revenue (including Allowances to District and Village Officers in 1870–71)	2,422,856	248,077	—
Assessed Taxes	2,072,025	961,801	—	Forest	373,349	59,872	—
				Excise on Spirits and Drugs	293,477	36,949	—
Customs	2,610,789	181,604	—	Assessed Taxes	43,991	2,290	—
				Customs	186,991	5,535	—
Salt	6,106,280	217,573	—	Salt	389,964	—	1,521
				Opium	2,014,425	193,742	—
Opium	8,045,459	92,361	—	Stamps	101,610	697	—
				Mint	59,532	—	28,517
Stamps	2,510,316	131,000	—	Post Office	613,041	—	36,893
				Telegraph	380,588	—	76,587
Mint	33,400	—	123,814	Allowances to District and Village Officers	Included under Land Revenue	—	283,609
Post Office	805,235	93,537	—				
				Administration	1,153,192	—	73,780
Telegraph	227,402	24,470	—	Law and Justice	2,996,190	92,736	—
				Police	2,275,335	—	159,400
Law and Justice	746,898	—	55,056	Marine	475,602	—	458,442
				Education, Science, and Art	624,690	—	243,936
Police	270,971	—	16,578	Minor Departments	212,897	212,897	—
				Ecclesiastical	153,544	—	7,539
Marine	333,145	3,192	—	Medical Services	523,486	80,412	—
				Stationery and Printing	233,675	—	19,650
Education	61,610	—	13,279	Political Agencies, and other Foreign Services	291,459	—	93,438
Interest	297,715	—	38,661	Allowances and Assignments under Treaties and Engagements	1,787,637	—	106,642
Miscellaneous	1,084,829	—	362,153	Miscellaneous	1,010,530	256,323	—
				Superannuation, Retired, and Compassionate Allowances	655,969	63,247	—
Army, Miscellaneous	943,685	—	116,738	Army	12,549,303	—	279,447
				Public Works, Ordinary:—			
Public Works, Ordinary	422,466	7,811	—	Public Works, including Supervision and Cost of Land for Railways, and Loss by Exchange on Railway Transactions	4,079,050	—	1,028,209
Ditto Irrigation	485,537	—	49,442				
Ditto State Railway	7,576	—	504	Provincial Services	200,000	200,000	—
		1,834,159	1,305,274			1,639,463	3,103,049
		1,305,274					1,639,463
Total, India £	51,235,489	528,885	—	Total, India £	39,899,435	—	1,463,586
England. Telegraph and Miscellaneous Receipts	178,197	—	16,280	Expenditure in England	6,771,300	313,089	—
				Ditto ditto, for Stores transmitted to India	1,425,150	11,034	—
		528,885	16,280	Guaranteed Interest on Railway Capital, less Net Traffic Receipts	1,834,811	287,747	—
		16,280					
						611,870	1,463,586
Total, India and England	51,413,686	512,605					611,870
				Total, India and England £	49,930,696	—	851,716

A few of the items of difference between the two years need a word of explanation. First, with regard to *receipts*, and dealing with the *increases:* the improvement under the head of *excise* on spirits and drugs was the effect of general increase of consumption; that under *assessed taxes* is due to the income tax having been raised to $3\frac{1}{8}$ per cent.; the increase of trade generally, except at Bombay, produced a larger revenue from the *customs* duties; while the *salt* revenue showed a recovery from the temporary check which the imposition of a higher duty produced in 1869–70.

Dealing next with the items of *decrease* in the *receipts*, the *land revenue* of 1869–70 was unduly swollen by the accumulated proceeds of sales of waste lands (427,073*l.*) having been brought to account in that year, so that the falling off under this head cannot be called a real decrease; the *mint* receipts were lower in consequence of a diminished demand for coinage, and the falling off in the receipts from *irrigation* was doubtless the result of the ample rainfall, producing a smaller demand for canal water.

Comparing the *expenditure* of the two years, we find that the loans raised in 1869, and the 4 per cent. stock, to the amount of 1,830,000*l.*, created for the purchase of

the Elphinstone Land Company's Estate, made a large addition to the charges on account of *interest*. The apparent increase under *land revenue* was simply a matter of account. A larger expenditure on *opium* was the result of increased cultivation and manufacture in Bengal and the North-West Provinces. The charges under the new heads of *Minor Departments* and *Provincial Services* are counterbalanced by reductions under education, science and art, police, and stationery, from which the expenditure has been transferred. The unfavourable rates at which bills were drawn in London on India produced a loss, which appears under *miscellaneous charges*. On the other hand, reductions in the general staff in India and in the European cavalry and infantry diminished the *army* charges. The *marine* charges for 1869-70 included a large extraordinary charge on account of irrecoverable advances to certain Port Funds; hence the apparent decrease under this head in 1870-71. Lapses and commutations reduced the payments on account of allowances, &c. Under treaties and engagements, the charge for *political agencies* and other foreign service was reduced by rather more than the amount paid in 1869-70 to the Amir of Cabul. The largest reduction, that of public works ordinary expenditure, was made to meet the financial exigency which became apparent in 1869.

An important innovation of a financial and administrative character was introduced during the year by the Supreme Government, and was to take effect from the commencement of the current year. It has been decided to hand over to the local governments the complete control over certain provincial services, and to assign to them for their maintenance a fixed sum annually from the Imperial revenues. The provincial services in question are Jails, Registration, Education, Medical Services, Printing, Roads, Civil Buildings, and Miscellaneous, and the proportion in which this sum is allotted to the several administrations are respectively as follows :—

	£
Oudh	206,948
Central Provinces	261,263
British Burmah	275,332
Bengal	1,168,592
North-West Provinces	640,792
Punjab	516,221
Madras	739,488
Bombay	880,075
	£4,688,711

The allotments are ratcably smaller in every instance than those of 1870-71, the aggregate amount of the deductions being 350,000*l.*; and it is left to the local governments to make up the deficiency, and to determine each for itself the kind of local taxation most suitable for the purpose and the circumstances of the particular province.

The various local governments were much occupied during the year under review in the development of the scheme, in its bearing on each of them individually, and in the consideration of the ways and means by which deficiency was to be met.

A second measure, of even greater importance than the last, from the magnitude of the principle involved in it, received the sanction of the Secretary of State for India during the year under review, namely, the question of providing from local sources the means of extending elementary education among the masses of Bengal, and of constructing and maintaining roads and other works of public utility. The Government of India, in forwarding the correspondence on the subject, stated that the imperial resources of the Empire were unable to provide the large sums necessary for such purposes as these; that, if they were to make roads, to educate the people of Bengal, and keep them in a proper sanitary condition, it could only be done by imposing on local resources such a burden as they could conveniently bear, and that they were therefore decidedly of opinion that it was the duty of the Government of India to insist on this being gradually done.

Though the question thus raised had immediate reference to Bengal, the arguments used on both sides in the correspondence involved both directly and by implication, the whole subject of the conditions and the circumstances under which the Government of India can be justified in imposing on the people special rates or taxes, in order to effect improvements which the existing revenue may be insufficient to provide for.

In the reply of the Secretary of State, dated the 12th May 1870, the Government of India were informed that Her Majesty's Government, after a careful consideration of a controversy which had been going on for a long course of years, had come to the

conclusion that rating for local expenditure was to be regarded, as it had hitherto been regarded in all the Provinces of the Empire, as taxation separate and distinct from the ordinary land revenue; that the levying of such rates upon the holders of land, irrespective of the amount of their land assessment, involved no breach of faith on the part of the Government, whether as regards holders of permanent or of temporary tenures, and that where such rates were levied at all, they ought, as far as might be possible, to be levied equally, without distinction and without exemption, upon all the holders of property accessible to the rate.

Public works were by no means retarded to the extent that from a comparison of the expenditure of the year under review with that of 1869–70 might appear probable. The large reduction in the imperial grant, which, upon financial grounds, was decided on in the autumn of 1869, was, in a great measure, effected by the curtailment of establishments and by vigilant economy; and care was taken that no works of the first importance to the country should be allowed to suffer. In connexion with this subject should be mentioned the establishment of the Government Civil Engineering College at Coopers Hill for the special training of young men wishing to enter the Public Works Department in India. The reasons which induced the Secretary of State for India in Council to take this important step are fully explained in the return which was laid upon the table of the House of Commons in 1871. The college was opened in August of that year by His Grace the Duke of Argyll, and the result of a year's trial has not disappointed the expectations of its founders.

Many important legal measures occupied the attention of the Legislative Council; and by an Act which received the sanction of the Imperial Parliament the Governor-General is empowered in an emergency to overrule a majority of his council, and natives of India are declared eligible for appointment, at the discretion of the Government of India, to the higher posts in the Civil Service without the necessity of undergoing an examination.

The accompanying figures exhibit the account of the Government of India, which is debited with the army charges of all India with the exception of Madras and Bombay, and with all the interest on the funded and unfunded debt. The post office and telegraph accounts also appear under this head.

Revenues and Receipts.	1870–71.	Compared with 1869–70.		Expenditure.	1870–71.	Compared with 1869–70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land Revenue	24,071	—	385,019	Refunds and Drawbacks	10,945	—	1,055
				Land Revenue	10,975	—	1,598
Tributes from Native States	85,650	—	101,267	Forest	5,651	—	689
				Excise on Spirits and Drugs	509	—	261
Forest	7,525	—	3,432	Stamps	280	—	17
				Mint	32,668	—	14,140
Excise on Spirits and Drugs	18,489	6,705	—	Post Office	613,041	—	36,893
				Telegraph	380,588	—	76,587
Assessed Taxes	80,350	40,658	—	Allowances, &c. under Treaties	164,474	713	—
Stamps	5,313	—	646	Total Direct Claims on Revenues	1,219,131	713	131,240
Mint	15,615	—	59,651	Administration	342,673	—	39,941
				Minor Departments	159,839	—	25,406
Post Office	805,235	93,537	—	Law and Justice	164,655	13,759	—
				Police	9,719	—	434
Telegraph	227,402	24,470	—	Marine	—	—	45,341
				Education	2,992	2,992	—
Law and Justice	37,776	—	997	Ecclesiastical	9,890	—	15
				Medical Services	6,584	6,123	—
Police	116	96	—	Stationery and Printing	62,995	—	7,903
				Political Agencies	95,918	—	13,204
Education	870	—	1,155	Miscellaneous	547,588	239,600	—
				Pensions, &c.	162,151	77,837	—
Interest	188,018	—	14,907	Army	6,512,574	—	461,271
				Public Works, Ordinary:			
Miscellaneous	429,697	—	276,222	Public Works	253,507	—	114,022
				Public Works, Extraordinary	13,836	13,836	—
Army, Miscellaneous	494,341	—	55,556	One per cent. Income Tax	37,516	37,516	—
				Railways, loss by Exchange	62,639	1,513	—
Public Works, Miscellaneous	6,297	—	10,045	Interest on Funded and Unfunded Debt	2,960,130	186,716	—
				Interest on Service Funds, and			
Railways (Gain by Exchange)	168,881	20,734	—	other Accounts	306,545	—	94,570
	2,595,646	186,200	908,897	£	12,930,882	580,605	933,347
Deficit	10,335,236	Net Decrease, £722,697.				Net Decrease, £352,742.	
£	12,930,882						

Bengal.

The complete separation of the Bengal Presidency into two portions was effected in 1836. The detached portion was entitled the North Western Provinces, and was placed under a Lieutenant-Governor. Bengal continued under the Governor General as Governor until 1853, when the yearly increasing responsibilities of the Supreme Government compelled the Court of Directors to appoint a Lieutenant-Governor of Bengal, who, assisted by a Legislative Council, practically exercises the same powers in civil matters as the Governors in Council of Madras or Bombay, though subject to somewhat closer supervision by the Supreme Government.

Mr. George Campbell, the present Lieutenant-Governor, succeeded Sir William Grey on the 1st March 1871.

Provinces and geographical divisions.

The Bengal territories consist of five principal provinces, viz., *Bengal*, *Behar*, *Orissa*, *Chota Nagpore*, and *Assam*, besides several outlying tracts. Geographically also they may be divided into five distinct regions, viz.: 1st, the lower portion of the plains of the Ganges (below Benares), and the whole of the great delta; 2d, the valley of the Brahmaputra from the gorge where it passes through the Himalayas to its union with the Gangetic delta; 3d, the valley of the Soorma, south of the Garo Hills, and named after the river which rises in the Cachar Hills, and eventually joins the Brahmaputra; 4th, and south of the last region, the sea-board district of Chittagong, isolated from all the larger water systems of India, and drained by rivers which are mainly supplied from the watershed of its own hills. The provinces of Chota Nagpore and Orissa, lying beyond the western limits of the Ganges plains, form the 5th region. The former is a plateau, wild for the most part, sparsely inhabited, and covered with jungle and forests. Equally wild is that portion of Orissa joining on to it, called the Cuttack Mehals, whose boundary is a range of hills running parallel to the line of coast from north-east nearly to the Chilka lake, which forms the south-west extremity of the province.

Races.

The civilised portion of the population is divisible into at least four distinct groups or races. The *Bengalis*, numbering some 25 millions, inhabit the rich districts in the delta of the Ganges and Brahmaputra rivers. In some of the eastern districts the Mahomedan, in the western the Hindoo, religion predominates. The great majority are agriculturists. Unwarlike, and physically a feeble race, it is with them that education has made the greatest progress. The *Hindoostani* races inhabit Behar, and a portion of the adjacent plateaus, and number about 11 or 12 millions. They are most industrious husbandmen; many of them are physically fine men, of the Aryan type; and Bhojpore, in Behar, was at one time the recruiting ground of the Bengal army. Orissa, which is nearly isolated from the rest of India by hills on one side and the sea on the other, is inhabited by the *Ooriahs*, who speak and write a language of their own. They are priest-ridden, timid, and slow, but in the main an industrious race. They number between three and four millions of people. The fourth group is composed of the *Assamese*, inhabitants of the civilized portions of the Assam valley. They are Hindoos, and have many points of resemblance to the Bengalis. Their language is distinct, but allied; they seem to have the same aptitude for education, but are reputed to be inferior in agricultural industry. They number about one million. The people living around and about the Assam valley, and throughout the whole length of the eastern frontier, and the tribes who occupy the hills and sub-montane slopes, and even portions of the plains, appear to be all of an Indo-Chinese type of features and manners. Some profess the Buddhist faith, some have adopted a semi-Hindooism, but the greater portion of them have rude religious ceremonies of their own. The British boundary in this part of the country is so undefined that the number of these people cannot be given. Not the least interesting section of the population is said to be the aboriginal tribes, who inhabit the mountains and highlands to the west of the Ganges valley and of Orissa. Their languages are not Aryan; they have no written character; they worship gods unknown to Hindoo mythology; they have no caste divisions; their food, their husbandry, their social customs are peculiar. These races are brave, and used to be much given to plunder, but they habitually speak the truth. Their total number may be said to be about two millions.

This enormous province, which may be compared for size and population to France, has an area of 246,829 square miles, and by a moderate computation a population of somewhat over 42 millions. The Regulation and Non-Regulation Districts comprise 211,331 square miles, and the Tributary and Native States make up the remainder.

BENGAL.
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POLITICAL.

It may be imagined that the political relations of the British Government with the numerous native states and scattered tribes, by which the Lower Provinces are surrounded on nearly every side, are of a varied and complicated nature, and constitute not the least important branch of the Administration. Beginning with the western extremity of the northern boundary of the province, the frontier line is for the first 500 miles formed by the important independent State of Nipal, the dependent State of Sikkim, and the independent State of Bhutan in succession. The remaining 300 miles bring the British Government in contact with a succession of tribes—Akhas, Duphlas, Miris, and Mishmis,—each of which includes a number of separate clans, with whom common action is almost impossible. They have all to be kept in check, and their raiding propensities restrained by the one sentiment to which they are amenable, that of fear, seconded in many cases by a small subsidy, dependent on their good behaviour. Rounding the head of the Assam valley, and turning westward, we come to the hilly country of the independent Singphoos, Abors, and Nagas. A love of trade and a fear of exclusion from the markets in the plains form the best, and for the last 30 years tolerably successful, weapons for keeping the tribes along the first 250 miles of this frontier under some sort of restraint. Beyond that point, however, come the Angami Nagas, who for years harried British territory, sometimes invading the Assam valley to the north, sometimes the southern district of Cachar. To check their depredations it was found necessary, six years back, to form a district, and place it under a Deputy Commissioner, whose instructions were, partly by force, partly by tact and conciliation, to bring these hillmen under control. From the Naga Hills District there extends westwards, and nearly at right angles to the main Patkoi range, into the plains of the valley of the Brahmaputra, a peninsula of hills, named after the three tribes which inhabit them—the Gaw-Khasi-Jynteah hills. The Khasi and Jynteah hills form a separate district, and have been for some time brought under regular government. The greater part of the Garo Hills is still practically independent. A special officer was, however, deputed to them in 1866, and the mountaineers of this district are being now very slowly brought under a rough kind of regular administration. East of these hills, and south of the Naga Hills District, lies the territory of the Rajah of Munnipore. S.W. of Munnipore, and between Cachar and the N.E. frontier of Chittagong, are the undefined regions inhabited by the troublesome Kookies and Looshais. West of the Looshais, and on the N.W. frontier of Chittagong, is situated the principality of Hill Tipperah, under a Rajah who draws the greater portion of his revenue from zemindaries in the British district of Tipperah, and who is therefore a regular subject of the British Government in respect to these estates, and also a semi-independent chieftain in his own territory. The Chittagong hill tracts are situated between Hill Tipperah and the regulation district of Chittagong on the one side, and the Looshai country and Burmah on the other. The mountainous tribes who inhabit them are administered on a rough and simple system by a Deputy Commissioner. The country within the western frontier of the Bengal territory is occupied from the 20th to the 24th degrees by tribes who, though much less troublesome than those on the northern and eastern frontier, are still in so backward a stage of civilization as to make the application to them of even the usual non-regulation provinces system impracticable at present. This portion, which is equal in size to nearly one third of the whole province, is divided into 25 tributary estates, most of which were ceded by the Mahrathas in the early part of the present century. They are administered with a few exceptions by their own Rajahs, under the general control and supervision of the Commissioners either of Orissa or Chota Nagpore.

"No report can adequately describe the innumerable questions which, along so "extended a frontier occupied by such diversified tribes, may force themselves upon "the Lieutenant-Governor's consideration. For every raid that occurs perhaps 20 are "threatened or feared, and the slightest indiscretion on the part of a local officer, or "of any one of the many European settlers on the frontier, may involve us in endless "complications."

Having thus identified the *locale* of these numerous native states and frontier tribes, such of the events of the year as require notice in this Report will become intelligible.

Bhuteas.

A party of Bhuteas having descended upon British territory and carried off 12 persons captive for purposes of slavery, the Commissioner of the Cooch Behar division intimated that, unless they and their property were at once sent back to Julpigoree, and an ample apology made for this violation of treaty engagements, the most

serious displeasure of the British Government would be incurred. The persons were sent back forthwith, and the Bhuteas implicated in the raid were punished by their chief, the Paro Penlow. BENGAL.

The series of raids committed during the year under review by the Looshais were on a more extensively organised scale, and of a far more determined character, than anything of the kind before. The first raid, which occurred on the 31st December 1870, was directed against a village in the hill tracts of Chittagong. The villagers being on the alert, not much harm was done, but two men were killed and one carried off. On the north of the Looshai country, however, several raids occurred in quick succession towards the close of January 1871 in Cachar. On the 23d of that month 25 men were killed and 37 carried off; and on the same day Mr. Winchester's plantation was destroyed, he himself was killed, and his little girl captured. The Monierkall Garden was attacked on the 27th, the fight lasting all day; two sorties from the stockade were unsuccessful, and the enemy only left on the night of the 28th, after the loss of 57 men. At Nugdigram on the same day 11 persons were killed and 3 carried off, and on the following morning the rear-guard of the party of troops and police that had been sent to the relief of Monierkhal was waylaid, the guard of sepoys being overpowered after a splendid resistance. In Sylhet, on the 23d, a village was almost entirely burnt, more than 20 persons being killed, and some young women taken away. At the end of January the raids ceased, only to recommence, however, in three weeks time, with as much vigour as ever. Looshais.

It will be remembered that the late Lieutenant-Governor held that the security of the frontier required the despatch of another expedition to accomplish what that of 1868–69 had left undone; but that, in accordance with the instructions of the Government of India, Mr. Edgar was directed annually to visit the Looshai country, to see as many of the chiefs separately as possible, to use his influence for the adjustment of their quarrels, and to reward, by small presents, those whose conduct had been praiseworthy. The occurrence, however, of the events which have been detailed, while the local officers were everywhere carrying out the instructions of the Government of India (Mr. Edgar being in close communication with Sookpilal when the disturbances broke out), seemed to prove incontestably that the policy of conciliation alone was utterly powerless and insufficient to protect our frontier from the tribes beyond, and the result was the military expedition which has recently been brought to a successful close. A full account of the operations of the force, and much that is interesting respecting the country and its tribes, will be found in a Return recently laid upon the table of the House of Commons, No. 210 of this year.

The small native State of Cooch Behar, some 1,364 square miles in extent, is during the minority of the Rajah under the management of the Commissioner of the British Division of the same name. The revenue of the year under review was 9,000*l.* more than in 1868–69. The survey of the country has been completed, and under the new settlement, which is in progress, land will henceforth pay according to quality and not according to its produce. The land revenue of the State, which was formerly under the management of several independent offices has been brought under the control of a single office, and all persons of influence who held land in fictitious names have been compelled to register their holdings. The loss of the early crops was in a great measure compensated by the luxuriance of the succeeding crops. The condition of the ryots has improved with the rise of prices. English piece goods have found their way into the country, and people whose clothing was of the most limited description are now well-dressed. Steady progress continues to be made in education; the number of schools having increased during the year from 56 to 60, and the number of pupils from 2,049 to 2,290. Cooch Behar. Revenue, 92,000*l.* Expenditure, 89,000*l.*

There has for some time been a dispute with Munnipore in regard to the boundary between that State and the Naga Hills which was laid down in 1841–2. In 1868 the Rajah occupied with his troops a village north of the line, and when remonstrated with asserted his claim not only to this village but to others also further north, on the ground that they had been subsequently reduced by his father and had ever since remained subject to the Munnipore State. As a first step the whole country in question was carefully surveyed, and two officers were during the year under review engaged in examining the points at issue, but, their conclusions not coinciding, a Special Commissioner was deputed to report on the matter, his instructions being that he should first determine the actual boundary as laid down in 1841–42, his finding being accepted as final, and that secondly, if for political or other Munnipore.

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reasons he considered that the line should be departed from, he should enable the Government of India to come to a final decision on the matter.

The only other noticeable event of the year in connexion with this State was the capture by the Sylhet police of Kunhai Sing, son of the ex-Rajah, who since the defeat of his attempt to supplant the government of the present ruler has been at large leading a troublesome wandering life. He is detained under very mild restraint at Hazareebaugh, under the provisions of Regulation III. of 1818, and receives a subsistence allowance.

Naga Hills.

No raids were made during the year by the Nagas on British villages in the plains. The tribes, moreover, allowed British officers to pass through their country and survey their lands, and complied with the repeated requisitions made upon them for carriage and supplies. The revenue collected in this district is small because the greater part of the population pay no taxes at all, but there was a slight increase during the year under review, due to the influx of fresh settlers. Trade is steadily, though slowly, increasing. The harvest throughout the district was unusually good. It has been impossible to do anything towards the introduction of schools into the Naga Hills, but the importance of the subject has never been lost sight of, and hopes are expressed that some commencement may soon be made. The system of receiving paid residentiary delegates from the principal Naga tribes, which was noticed in the last report, promises to answer admirably, and has already in many ways proved to be of considerable use.

Khasi Hills.

Two villages belonging to the Cheyla Federation in the Khasi Hills having, through their elders, petitioned to be received as immediate subjects of the British Government, the deputy commissioners met the people on an appointed day, and, having ascertained that such was the real wish of the majority, received the usual agreement from them, and appointed a sirdar over the village.

Garo Hills.

Colonel Haughton, the commissioner, was able to penetrate the Garo Hills from the Khasi Hills, and to carry out his purpose of deciding the boundary between them. The country traversed was extremely difficult, but the boundary was nowhere found to be undecided in that direction. It is a curious fact that most of the villages in this part of the country are nomadic. A village may be very accurately laid down by survey, but on visiting the spot the traveller may find to his surprise that the site is overgrown with jungle, and that the village he is seeking is half a day's journey off, the inhabitants transporting the name of the village with it. In one instance Colonel Haughton found that a village had been carried across the boundary of a Rajah's territory, and that the people continued to acknowledge themselves his subjects. A more extended tour was subsequently made by Captain Peet, who succeeded in making a complete circuit of the hills, visiting the villages, and gaining information as he went. There was not a show of opposition anywhere, and the commissioners feel assured that the whole of the Garo Hills might be entirely brought under control, the policy being that sanctioned more than fifty years ago for this district, namely, the bringing the people under responsible and acknowledged rulers. At the annual meeting with the Garo chiefs, held by the Deputy Commissioners, they all professed themselves loyal and content, and were presented with the usual sunnuds and insignia of office.

Vaccination.

Vaccination has been most successfully introduced among the Garos by sending into the hills two trained young Garo scholars of the Goalpara missionaries. Some

Schools.

progress has been made towards the education of the people. The number of schools increased during the year from 8 to 14. There is one very successful girls' school, and in some places a few girls attend with the boys. The normal school has turned out 10 teachers, one of whom is master of a school recently established at the foot of the Garo Hills, among the descendants of the Burmese invading army of 1824. The schools all belong to the American missionaries.

Police.

The police force was raised to its full strength of 150 men, but these are, with two exceptions, not employed upon outpost duty, the principle adopted with the guard being to make them do their own police work. The revenue derived from the district was 1,300*l.* against an expenditure on all accounts of 5,828*l.*

A good deal of trouble has been caused by the appeal of the Rajahs of Shooshung and Sherepore against the effect upon themselves of Act XXII. of 1869, which confirmed a ruling of Government that a line running along the foot of the Garo Hills should form the northern boundary of the Pergunnahs of Shooshung and Sherepore and of the district of Mymensing of which they formed part. The Act mentioned, in fact only gave effect to an older Act (Act X. of 1822), which no longer fulfilled its

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object; that object being to put a stop to the bloody raids committed by the Garo mountaineers, which have often been traced to the interference of the Zemindars of the plains. Under its provisions the Zemindars are strictly prohibited from having any direct relations with the Garos, and the administration of the whole of the Garo Hills, including such parts of it as were claimed by the Mymensing Zemindars, is placed in the hands of the officers of Government. The claims of the Rajah of Shooshung are being carefully investigated, and should they be found tenable he will receive fair and liberal compensation. The Zemindar of Shcrepore failed to establish any claim to compensation.

Chittagong Hill Tracts.

Although the hill tracts enjoyed comparative immunity from the attacks of the border tribes, the disturbed state of the frontier generally, and the unusually extensive and organized raids committed on adjacent districts, made it necessary to strengthen the frontier defence of this district and also to increase the permanent police force by 200 men. The attempt of the deputy commissioner, Major Graham, to reach Bepari Bazar, where Mr. Edgar, coming from the Cachar side, was expected to be on a certain date, failed in consequence of the refusal of Vandoola, a Syloo chief, to allow him to pass through his country. Some valuable information, however, was obtained in regard to the strength and locality of the leading chiefs of the Looshai tribe, the nature of the country, the position of important landmarks, and the direction of the principal routes. One chief did all he could to assist Major Graham, and had his house plundered and his village destroyed by the Howlong tribe in consequence. He received compensation and was assured of the assistance of the British Government. The relations of the district officers with the principal chiefs were satisfactory. The fair at Kassalong was not very largely attended by Looshais, and it appears that during the three years it has been established it has produced no appreciable good compared with the large sums spent upon it. Captain Lewin considers that it has neither noticeably increased our knowledge of the independent frontier tribes nor drawn any closer friendly ties between us. A large extent of roads and police paths was opened and cleared during the year. The increase in the number of civil suits from 492 in 1869-70 to 613 in the year under review is a fair indication of steadily increasing confidence in the courts. The hill revenue of the district was larger by 670*l.* than in 1869-70, while the expenditure was slightly less. Education progresses slowly. Under the new and specially favourable rules prescribed for this district with a view to induce the inhabitants to adopt plough cultivation instead of the wasteful custom of "jooming" described in previous reports, by which land once cultivated is rendered useless for eight or nine years, four leases have been granted, and there appeared to be little doubt that in the following year there would be a considerable increase in the amount of land cultivated on the new principle. Another subject engaged the serious attention of Government, namely, the excessive drinking which prevails among the hillmen. Inquiries elicited the fact that half of the income of a hillman is spent in liquor. The introduction of a system of excise was suggested, but the people are so wedded to old customs that it was found to be next to impossible to enforce an Abkari law, and any such change must be cautiously and gradually introduced. As other important improvements are already in progress tending to reform the habits of the people, it was decided not to take any steps at present in the way of suddenly checking the evil.

Revenue, 3,545*l.* Expenditure 14,332*l.*

Tributary mehals of Cuttack.

Keonjhur continues under the able administration of Captain Johnstone, who, it will be remembered, was mainly instrumental in restoring the country to quiet three years ago. The people have settled down to their ordinary pursuits, and all parties now acknowledge the Rajah as their chief. He himself, during the year under review, displayed no little aptitude for business. Besides trying many civil and criminal cases, he made himself thoroughly acquainted with the revenue system of the State, and was ready to investigate all cases of oppression by the Sirdars. His conduct, indeed, contrasts most favourably with his former indifference to the welfare of his subjects. The plough tax of 1*s.* per plough and the poll tax of 6*d.* on those who own no plough appears to have worked well and proved acceptable to the people, who are now freed from all demand for forced or unpaid service. The goodwill of the people towards their Rajah has been shown in their voluntarily raising 1,400*l.* on his approaching marriage; indeed, the marriage subscriptions were expected to reach double that sum, or about two-fifths of a year's revenue.

Keonjhur.

The year's revenue was 6,920*l.*, and the expenditure 6,000*l.* There was little crime; schools increased in number from 8 to 20; communications have been improved; weekly markets have been established at four places, and trade is steadily on the increase.

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The remaining estates comprising the tributary mehals of Cuttack are 19 in number, of which three are under direct Government management and 16 are managed by their own chiefs. Among these, as well as in Keonjhur, education made decided progress.

Tributary mehals of Chota Nagpore.

The general condition of the six estates which constitute the tributary mehals of Chota Nagpore during the year under review was satisfactory. The harvest was unusually plentiful and the health of the people was good. There were few very heinous crimes and no disturbances of any kind.

Nawab Nazim of Moorshedabad.

The prolonged absence of the Nawab Nazim in England is stated to be the cause of serious embarrassment in the settlement of the Nizamut affairs; and measures of reform necessary for the liquidation of his debts, which now amount to a heavy sum, are awaiting his return.

CIVIL DIVISIONS.

The five provinces, Bengal, Behar, Orissa, Chota Nagpore, and Assam, which comprise the territory directly under the Lieutenant-Governor are divided into 11 divisions or commissionerships, there being six in Bengal, two in Behar, and one each in Orissa, Chota Nagpore, and Assam. There are further 36 regulation and 18 non-regulation districts, 54 in all. In 29 of the former, in which the subdivisional system has been carried out, there are altogether 78 subdivisions; the non-regulation districts have 25 subdivisions. The regulation districts are in all respects subject to the general laws and administrative system of the Indian Government. The non-regulation districts are composed of three classes, namely, (1.) Newly acquired territory to which the general regulations have never been extended; (2.) Tracts of country inhabited by primitive races specially exempted from the operation of the regulations, to whom a less formal code of law is better adapted; (3.) Semi-independent or tributary estates administered or partly administered by British officers.

Calcutta.

The capital of the province, however, does not come under either of these systems, but has, like the other presidency towns, a special organization of its own, and a legal procedure based directly on the English system. In civil suits above a certain limit, as well as in all sessions trials, it is under the original jurisdiction of a branch of the High Court, in which only English and Irish barristers and Scotch advocates can practise. In revenue matters also it forms part of no district, though it is subordinate to the Commissioner of the presidency division. The affairs of the municipality, which was constituted under Act VI. of 1863, are conducted by a board of justices, presided over by a salaried officer, entitled Chairman, who is virtually the mayor of Calcutta. The population of the city in 1866 numbered 377,924 persons.

Administration Staff.

The staff of officers who were employed on the 31st March 1871 in the administration of justice, in the ordinary duties connected with land revenue and in the chief offices in the police, income tax, registration, and other departments, numbered 762.

Presidency -	- 51
Regulation Districts -	- 579
Non-Regulation Districts	- 132
	762

Out of a total of 586 appointments connected with the administration of the regulation provinces of the Government of Bengal, with salaries varying from 240*l.* to 1,200*l.* per annum, 428 were held by natives, and the rest by Eurasians and Europeans. In the year 1869–70, out of 656 appointments, 495 were held by Natives. In the Education Department, the total number of offices with salaries varying from 180*l.* to 840*l.* per annum was 131, of which 102 were held by Natives during the year under review, against 112 held by them out of 140 appointments in 1869–70.

Land Revenue.

Throughout the greater portion of the territory under the Lieut.-Governor of Bengal the land revenue was permanently fixed in the last century by Lord Cornwallis, and the very large increase to the rents, which is mainly due to the increased prosperity and security of the country, has passed into the hands of private proprietors. These private rights have been divided and subdivided by a process of sub-infeudation, the original proprietor having long ago converted his interest in his estates into a permanent rentcharge on the land; and the practice of sub-letting in integral or fractional parts has gone on until it will be found that where the rent of an estate has increased, say from 200*l.*, the Government charge, to 1,000*l.*, instead of a single zemindar enjoying the 800*l.* per annum, this sum is shared by four or five grades of landowners, each with a perpetual interest in the land, and each often consisting of many co-partners. In spite, however, of the permanent settlement, the land revenue of Bengal increases slowly from lapses and other causes, and now yields not far short of four millions sterling.

Legislation.

Eight Acts were passed during the official year by the Legislative Council of the Lieut.-Governor of Bengal, and received the assent of the Governor-General. Act IV.

of 1870 constituted the commissioner of revenue in each division of the provinces, a court of wards for his division, subject to the control of the Lieut.-Governor of Bengal, with power to manage the estates of disqualified owners. Act V. appointed commissioners for the improvement of the port of Calcutta. Act VI. provided for the appointment, dismissal, and maintenance of village chowkeedars,—for the better organization in fact of the village police. Act VII. was for the improvement of the sanitary condition of the town of Dacca. Several bills were besides in various stages of progress. BENGAL.

Under the head "Judicial" are included all those general questions which have a direct bearing on the administration of justice, without being themselves civil or criminal proceedings. It is the only branch of the administration in which the Lieut.-Governor divides the control of the courts with a collateral authority, the High Court of Calcutta. This court is the chief tribunal of the provinces, and its judges in a great measure control and direct all the courts throughout the Bengal territories. Judicial.

Of the numerous measures which occupied the attention of the administration in its judicial capacity during the year under review the following appear to deserve notice. A collection was made of the rules and regulations passed by the Executive Government from time to time for the administration of the non-regulation provinces under the Governor of Bengal. The compilation has already been found useful for purposes of administration, but its main object was to enable the Legislature, when legislating for the non-regulation provinces, to ascertain the laws already existing there, the force of law having been conferred by the Indian Council Act on such of these rules and regulations as were passed before the 1st August 1861. The European Vagrancy Act of 1869 in its entirety came into operation in October 1870. The Act was greatly needed to enable the Government to deal with the increasing class of European vagrants, whose condition in India is most unhappy, while they are a source of embarrassment to the Government and a danger to the community. Two more questions of the highest importance have for some time occupied the attention of the Government, but cannot yet be said to have passed out of the first stage of consideration. They are—(1.) The separation of the civil service into judicial and executive branches; (2.) The imposing of some further restrictions on the right of appeal from the High Court to the Privy Council.

The present constitution of the police force of the Lower Provinces dates from 1861. Its entire management is vested in an Inspector-General, who has under him Deputy-Inspectors-General, and for each district a District Superintendent. At the same time the commissioners of divisions and the district magistrates, who are still held responsible for the public peace and the suppression of crime, necessarily retain some of the control over the force which they formerly possessed. But this divided authority has been found to be prejudicial to the prestige of the district magistrates as local representatives of the Government, and it seems clear that the executive head of the district must, in order to be recognized as such in the eyes of the people, be the real as well as the nominal head of the police force. The subject is now under consideration. In Assam the police have already been again placed under the control of the local authorities, and the Commissioner of Assam exercises the powers of an Inspector-General. Police.

The district police force in Bengal consists of (1st) the regular police, who are paid from Imperial revenues, and include the frontier, road, and river patrol, cantonment police, and the salt preventive establishment; (2nd) the municipal police paid by the municipalities; (3rd) the railway police, maintained partly by Government, partly by the railway companies; (4th) the village police, maintained by the landholders. The changes made in the regular police in 1869–70 had the effect of reducing their numbers by 4,146 men of all ranks, and at the same time improving the position of those who remained. The budget grant was 54,562*l.* or 11 per cent. less, and the actual expenditure more than 60,000*l.* less, than in the previous year. The village police or chowkeedars were in the proportion of one to every 51 houses. An Act was passed during the year for the improvement of this force, which has for a long time been in an unsatisfactory state. For the first year it was introduced in one only of the districts within the limits of each commissionership, and the magistrates were enjoined to proceed with caution, selecting in the first instance a few villages for experiment before giving the Act wider scope. In 1869–70 the total cost of the railway police was 11,984*l.* of which the Government share was 2,996*l.* During the year under review certain general principles were laid down for

	Number.	Cost.
Regular police	22,395	£420,795
Municipal „	6,738	50,313
Village „	188,133	395,886

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regulating the constitution and strength of the force, which it was settled should be divided into two bodies, namely, "the state police" and "the private police," the duties of the former being confined solely to passenger traffic, and the private police being told off to the duty of watching goods, sheds, &c. The Government share of the expense of the force was at the same time fixed at 2,862*l.*

The general conduct of the force was satisfactory; the mortality continued very high, being at the rate of 20·1 per thousand; 57,114 prisoners were arrested, and 59·2 per cent. convictions were obtained. Compared with 1869 these results show a decrease of 7,884 in the number of arrests, and an increase of 1·1 in the convictions.

The great extension of late years of the trade in fire-arms, which are supposed to find their way to the frontier, has for some time occupied the attention of the Lieutenant-Governor, and other means of checking this mischievous trade having proved ineffectual, His Honour has urged upon the Government of India the political advisability of imposing, in addition to the present *ad valorem* duty, a tax on each weapon imported, which it is hoped will practically check the purchase of fire-arms by the frontier tribes.

CRIMINAL JUSTICE.

High Court.

Courts of Session.

Convictions were obtained in nearly three-fourths of the total number of 302 "original" cases that came before the High Court. Of 2,474 appeals referred to it, the previous decision was modified or reversed in 422 cases. In the Courts of Sessions, out of a total of 4,205 persons committed to them, 2,324 were convicted, and 1,358 were acquitted. The number of persons who appealed to the same courts was 8,441, of whom 1,880 had their sentences modified or reversed, and 4,888 had theirs confirmed. The number of persons under trial before the Criminal Courts of the various magistrates of Lower Bengal was 145,608, of whom 78,026 were convicted. The number of persons under trial in 1869 was 135,271.

Wahabee trials.

The proceedings taken in connection with the Wahabee movement terminated during the year under review. The total number of persons arrested from the beginning, and detained as state prisoners under Regulation III. of 1818, was 26. Seven of them were convicted and sentenced to transportation for life, with forfeiture of property, one was acquitted, and the rest who were men of very small consequence, were discharged with a warning that their conduct would be watched and reported on by the police.

PRISONS.

There are 43 gaols in the province, exclusive of lock-ups, and three more central gaols are being built. The number of prisoners in custody during the year was 69,800, against 76,025 in 1869, the decrease being due to 1870 having been a year of comparative plenty, and 1869 one of scarcity; the daily average was 19,855. There was a great diminution in the amount of sickness, and the death-rate fell from 5·5 to 4·35. Out of the 58,955 prisoners admitted during the year, 1,441 were fairly educated, 3,943 could read and write a little, and 53,571 were entirely ignorant. The net profits derived from the manufactures carried on in the gaols was 25,276*l.*, exceeding those of 1869 by 3,506*l.* The cost of the prisoners maintenance was 11 per cent. less than in 1869, when the price of food was exceptionally high, and, with one exception, there was a decrease under every head of expenditure. The experiment recently attempted of employing a number of convicts on irrigation works at Dehree, on the Soane River, has been successful.

Civil Justice.—There was a decrease in the number of suits for money instituted during the year to the extent shown in the margin. In addition to these suits there were 82,587 suits under the rent laws and 29,682 of other kinds, making a total of 298,834 suits instituted during the year. Including those pending from 1869 it appears that the grand total of suits of every kind that came before all the Courts of the province in their original jurisdiction was 362,515, of which 306,657 were disposed of, and 55,858 stood over for 1871. The total value of the suits disposed of in the Civil and Revenue Courts, including the Calcutta Small Court, was 3,330,000*l.*

	1869.	1870.
Calcutta :—		
High Court - -	813	760
Small Cause Court	34,340	32,339
Interior :—		
District Judges -	2	48
Subordinate Judges	2,822	1,914
Moonsiffs -	126,820	108,590
Small Cause Courts	40,092	42,914
	204,889	186,565

There were 40,655 appeals to the various Courts, of which 23,982 were decided; the previous decisions being confirmed in those which came before the High Court in 2,205, and reversed in 329 cases.

Municipal administration.

The completion, during the year 1870, of the drainage works, and the scheme for the water supply of Calcutta, has been attended with incalculable benefit to the health of

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the city. The drainage works have cost upwards of half a million. They include all the southern half of Calcutta, and their success has been so marked that as funds become available they will gradually be extended to the northern half of the city. The waterworks were commenced in 1866 and were completed in the early part of 1870 at a cost of 651,600*l.* The objection of the Hindoos to drinking pipe water was overcome by a decree of the religious authorities; and the death-rate for the year under review was 2·34 per cent. on the total population, against 3·29 per cent. in the preceding year, and 5 per cent. in 1865. The funded debt of the Corporation of Calcutta is about 1,130,000*l.*; the ordinary receipts of the year were 211,000*l.* The extraordinary receipts, which included the issue of five lacs of municipal debentures, and about the same sum derived from the water rate, raised the sum total to 360,900*l.*, or about 80,000*l.* in excess of the receipts of 1869. The expenditure of the year amounted to 304,597*l.*, leaving a balance of 56,000*l.*

The municipalities of the Mofussil are some five and twenty in number; their aggregate receipts were for the year under review about 52,000*l.*

Marine.

The strength of the pilot service on the 31st March 1871 was 76 on the Government rolls, besides 48 licensed pilots. There has of late years been an increase in the number of steamers entering the port of Calcutta, and a corresponding decrease in the number of sailing vessels; the main cause of the change being, probably, the opening of the Suez Canal. Port Canning, having proved a complete failure, has been closed. Only one vessel per annum entered it during the last two years, and one of those was driven in against her will by stress of weather; by closing it, therefore, no one will be injured, while 10,000*l.* a year will be saved.

	1867–68.	1870–71.
Sailing vessels	711	670
Steamers	173	261
	884	931

Census.

Preliminary experiments having proved the impossibility of taking a simultaneous Census of the province, it was finally decided that the returns should be as simple as possible, full latitude as to time and manner being left to the local authorities. The result will be stated in the report of next year.

Emigration.

Emigration, which all passes through Calcutta, is divided into two totally distinct branches:—(1) emigration proper, or the transport of coolies from British India to the several colonies which import labour; (2) the inland transport of labour from the western side of India to the eastern provinces, where the tea cultivation has raised a demand for it which the local market is unable to supply. This branch of emigration is entirely under the Local Government, and is regulated at present by Act II. of 1870. The demand for labour is not on the increase, owing to the larger employment of local labourers or to the emigrants settling down, after their period of service is over, in their new homes, and no great difficulty is experienced in procuring the requisite supply. The wives as a rule accompany their husbands. The number of coolies despatched to the tea districts during the year under review was 4,863, against 5,360 in 1869–70; the per-centage of women to men being nearly 77 to 100.

Inland labour transport.

Transmarine emigration.

Emigration to the colonies is not on so satisfactory a footing. For many years past, while the demand for labourers in India has been steadily increasing, the difficulty of procuring them has become greater. Recruiting has been almost given up in Bengal proper, and is now mainly carried on in Upper Behar and the North-western Provinces, and even there the difficulty of getting recruits is conspicuously on the increase, the number of emigrants despatched in 1870–71 having been only 9,212, against 12,043 in 1869–70. The coolies who emigrate to the colonies are rarely accompanied by their wives, and the greatest difficulty is met with in procuring the proportion of 40 females to 100 males, required by Government. The consequence of this state of things is that there is a growing discontent in the districts where recruiting is carried on, the local officers accusing the recruiters of persistent deception, while the latter accuse the local officers of being hostile and obstructive. The whole question of the system of recruiting emigrants is receiving the careful attention of Government.

Finance.

It will be seen from the accompanying statement that the Imperial Revenue for the year under review, amounting to 16,323,744*l.*, was larger than that of 1869–70 by 554,530*l.*, and that, after deducting the principal charges of the year, amounting to 6,308,306*l.*, there remained a net contribution of 10,015,438*l.* towards Imperial expenditure. It will be seen, moreover, that 3½ millions of this net surplus are due to land, 2½ to salt, 3½ to opium, 1 million to customs, and that, compared with the other provinces of British India, the leading characteristics of the Revenue of Bengal are, that taxes, as distinguished from land revenue, viz., excise, assessed taxes, income tax, salt, and customs, &c., are more productive, while land revenue is less so, owing, of course, to the operation of the permanent settlement.

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Revenues and Receipts.	1870-71.	Compared with 1869-70. Increase.	Compared with 1869-70. Decrease.	Expenditure.	1870-71.	Compared with 1869-70. Increase.	Compared with 1869-70. Decrease.
	£	£	£		£	£	£
Land Revenue - -	3,973,167	—	55,361	Refunds and Drawbacks -	135,199	—	65,596
				Land Revenue - -	370,567	1,198	—
Forest - - -	10,325	—	14,141	Forest - - -	8,646	—	2,281
				Excise on Spirits and Drugs	133,928	31,030	—
Excise on Spirits and Drugs	733,651	43,733	—	Assessed Taxes - -	31,758	597	—
				Customs - - -	63,911	4,002	—
Assessed Taxes - -	683,224	309,758	—	Salt - - -	6,295	—	6,089
				Opium :—			
Customs - - -	1,138,327	161,834	—	Cost - - -	1,861,331	140,699	—
				Charges - - -	150,608	53,730	—
Salt - - -	2,644,157	60,595	—	Stamps - - -	27,935	1,007	—
				Allowances and Assignments			
Opium - - -	5,644,264	50,127	—	under Treaties, &c. -	259,689	50,059	—
Stamps - - -	737,728	29,901	—	Total Direct Demand on Revenue - £	3,049,867	282,322	73,966
Law and Justice - -	279,371	—	21,859	Administration - -	157,948	—	4,523
				Minor Departments - -	13,432	13,432	—
Police - - -	65,116	—	12,057	Law and Justice - -	930,235	26,883	—
				Police - - -	523,865	—	60,932
Marine - - -	194,320	26,860	—	Marine - - -	180,419	—	350,755
				Education - - -	218,183	—	19,457
Education - -	45,159	2,105	—	Ecclesiastical - -	22,398	—	1,983
				Medical Services - -	131,550	27,659	—
Interest - - -	7,831	—	17,307	Stationery and Printing -	40,066	—	10,927
				Political Agencies, &c -	3,503	—	152
Miscellaneous - -	125,103	—	10,947	Miscellaneous - -	43,720	—	19,564
				Superannuation and other			
Public Works,—Miscel-				Allowances - -	73,131	9,663	—
laneous.	25,393	—	1,752	Allotments for Provincial			
				Services - -	53,287	53,287	—
Irriga-							
tion.	9,032	3,545	—	Public Works, Ordinary,			
				comprising :—			
State				Public Works - -	615,862	—	250,665
Railway.	7,576	—	504	Supervision and Cost of	9,679	—	10,700
				Land for Railways -			
				State Railways -	9,383	514	—
				Interest on Service Funds			
				and other Accounts -	9,812	—	30,975
		638,458	133,928	Public Works,—Extra-			
				ordinary - - -	226,971	—	147,706
£16,323,744		Net Increase £554,530		£	6,308,306	413,760	982,305
				Surplus - - £	10,015,438	Net Decrease £568,545	
				£	16,323,744		

This Imperial account does not include receipts to the amount of 630,000*l.*, and an expenditure of 610,000*l.*, from local funds.

Customs. The aggregate revenue of the Customs Department amounted to 3,685,960*l.*, but, excluding salt, it appears that from general merchandise alone was derived the sum of 1,131,574*l.* About 98 per cent. of the revenue is collected in the port of Calcutta, and 98 per cent. of the remnant at Chittagong, leaving an insignificant amount for the Orissa ports, Cuttack, Pooree, and Balasore. During the year under review the Customs Department yielded a larger revenue, and was able at the same time to reduce its expenditure.

	£
Imports -	866,650
Exports -	264,964
Total -	£1,131,574

Salt. There are three kinds of revenue producing salt: (1) that manufactured by Government: (2) that manufactured by private persons on which an excise duty is levied: (3) sea imported salt which pays a customs duty. The amount of each kind of salt consumed during the year and the revenue each realized is shown in the margin. The clearances of salt in 1869-70 exceeded those of 1868-69 by 487,783 maunds, and during the year under review it will be seen that there was a further increase of 265,269 maunds. The net revenue showed an improvement of more than 100,000*l.* The great reduction that has taken

—	Maunds cleared in 1869-70.	Maunds cleared in 1870-71.	Value. 1870-71.
			£
Government salt -	219,538	35,277	16,653
Excise salt - -	136,839	257,198	80,423
Imported - -	7,427,032	7,756,203	2,520,767
	7,783,409	8,048,678	2,617,843

place of late years in the charges connected with this important item of revenue should not be overlooked. In 1859–60, when the total proceeds from salt amounted to 2,687,000*l.*, the charges consumed no less than 387,000*l.* In the year under review, when the total proceeds were actually slightly less than eleven years before, the charges amounted to 88,500*l.* only; leaving a net revenue of 2,555,444*l.* to set against a net revenue of 2,300,000*l.* in 1859–60. In the year under review alone a reduction was made of 12,906*l.* Government ceased to manufacture salt in 1863, but the stock which it then had in hand is not yet exhausted. The wholesale price in Calcutta of Liverpool salt varied between Rs. 59 and Rs. 79 per 100 maunds; in 1869–70 it varied between Rs. 54 and Rs. 82. These fluctuations depend of course upon the number of ships arriving at one time and the amount consequently thrown into the market. The fluctuations have of late been less violent than in some former years when salt has been known to rise almost at a bound from Rs. 82 to Rs. 131. The retail price in the Mofussil is said to be probably not much affected by these temporary changes.

Opium. Opium is the most lucrative source of the Indian revenue next to the land, and will remain so while a preference is shown to the Indian drug in the Chinese market. The systems of raising the revenue pursued in Bombay and Bengal are different. In the former all that is done is to levy a heavy export duty on the opium as it enters British territory from the native states of Central India where it is grown and manufactured. On the Bengal side advances of money are made by Government to the ryots to enable them to grow the plant, and the manufacture is under the charge of a special department. The sales take place in the open market in Calcutta, and the profits are even larger than those realized by the export duty at Bombay. The opium thus sold in Calcutta is termed "provision" opium, while that portion which is sold at the Government treasuries to licensed retail vendors for consumption in the country is called Abkaree opium.

There was a decline in the average prices of the provision opium from Rs. 1,198 per chest in 1869–70 to 1,120 in 1870–71, but the deficiency was made up by the sale of a larger quantity; the number of chests sold (49,030) being 3,350 in excess of the number sold in 1869–70. The decrease in the *net* revenue was owing to the increased cost of establishment in consequence of the extension of the cultivation and increased payments for cultivation. The land under cultivation in the Behar and Benares agencies was 530,557 acres against 500,750 in 1869–70.

Abkaree or excisable opium, that is, the opium consumed in India, bears a very small proportion to the quantity exported to China, and brings in a revenue hardly equal to 5 per cent. of the entire opium revenue. It is, nevertheless, the most remunerative of the various articles taxed under the head of excise, its value having been much increased by the prohibition, in the year 1860, of opium cultivation in Assam, where the drug was and still is largely consumed by the Indo-Chinese races. This prohibition has of course largely restricted the use of opium by raising its price, and has been followed by a perceptible improvement in the physical condition of the people. Next in importance to opium comes the tax on country spirits, which in the year under review yielded 28,000*l.* more than in 1869–70. The most productive of these is ganja, an exciting liquor prepared from a species of hemp. The system under which this spirit is taxed has had the effect of reducing the consumption from 17,000 maunds in 1856–57 to an average during the last five years of about 11,000 maunds, while the receipts have in the same time increased from 46,696*l.* to 100,000*l.* It will be noted that with a large increase in the receipts derived from excise there was a decrease in the charges of the department.

Stamps. The decrease under the head of stamps is entirely due to a recent reduction in the amount of the court fees leviable on the institution of plaints. Under the general stamp duties there is a continuous increase.

Income tax. The income tax was raised during the year under review from $1\frac{1}{2}$ to $3\frac{1}{3}$ per cent., the total number of persons assessed to it being 123,558, against 189,877 in 1869–70. Only 88 persons were assessed to incomes above 10,000*l.* a year, and nearly half of these were residents in Calcutta; 1,520 were assessed to incomes between 1,000*l.* and 10,000*l.*; and more than half the taxpayers to incomes varying from 50*l.* to 75*l.* a year.

Public works. The branch of the Bengal Secretariat, which has the supervision of the Public Works of this province, is divided into separate departments for railways and irrigation. The Imperial grant for Public Works of all kinds was 1,085,810*l.*; the actual expenditure was 863,541*l.* only, owing principally to a large lapse under the head of "extraordinary" works. The addition, however, of 172,500*l.* spent from local funds on local

BENGAL.

Public Works, raised the total outlay to 1,036,295*l.*, or a little more than a million sterling.

Ordinary public works.

On ordinary Public Works, including Local Works, the expenditure amounted to 715,126*l.* The largest portion of the Imperial expenditure (150,000*l.*) was on account of civil buildings; upwards of 140,000*l.* was spent on communications, and 95,000*l.* on military buildings. The financial resolution of the Government of India, by which the entire control of certain works is transferred to the Local Governments, came into force in the year 1871–72.

	£
Imperial	542,500
Local	172,500
	£715,000

Orissa project.

The works under the Irrigation Department of the Bengal Government may be classed in three divisions:—(1) the Orissa project, or the construction of a system of canals, to comprise all the rivers between the Hooghly and the Madras frontier. This undertaking, when extended throughout Orissa, will supply that province with water-supply and water-carriage; (2) the Behar project, for building an anicut across the Soane at Dehree and constructing canals in Western Behar; (3) ordinary works, specially the repairing of embankments and sluices. The two former, which may be classed together as "extraordinary" works, were both transferred from a private company to the Government on the 1st of January 1869. The Orissa project, having been by far the longest in hand, is naturally the most advanced; it is divided into two circles, the Orissa and the South-west or upper circle, each under a superintending engineer. In the former, up to the end of the year, 72 miles of canal were open to navigation in three sections; in the latter, about 30 miles, from the Hooghly to the Cossye at Panchkoora. The receipts from all sources, as given in the margin, are far short of what was expected, and as the expenses are heavy the profits are as yet nil. In point of navigation the receipts have been very satisfactory, but the irrigation receipts have been disappointing, especially on the larger canals in Orissa.

	£
1868–69	542
1869–70	5,235
1870–71	8,280

Behar project.

The chief work in the Behar project is the weir across the Soane at Dehree. A large number of convict labourers are here employed, and the efforts made during the year to push on the work have been attended with fair success. No portion of the canals, however, is yet open for use.

Forests.

The Forest tracts in Bengal are separated into five divisions—Assam, Chittagong, Cooch Behar, Bhaugulpore, and Dacca, and these again into several sub-divisions. The Government forests are of two kinds, *open* and *reserved;* only certain kinds of trees being preserved in the first class. Great care is required in the important operations of the department, owing to the possession of a variety of ill-defined rights of property in the forests by the wild tribes inhabiting them, of which it is not consistent either with equity or with the tranquillity of the country to deprive them. The present Forest law (Act VII. of 1865) has been found to be in many ways defective. In the preparation of a draft law amending it, care is being taken to ensure due protection to the rights of the hill tribes. The financial working of the department was satisfactory, and it will be seen from the figures marginally given that the net cost of the department was reduced during the year from 5,567*l.* to 2,295*l.* In addition to the receipts from the sale of timber, the sum of 5,500*l.* a year is derived from gums, bamboos, grass and silk cocoons, in the shape of fees, which are collected by the district officers and do not appear in the Forest account.

	Receipts.	Charges.
	£	£
1869–70	4,020	9,587
1870–71	6,140	8,435

Agriculture.

The year was a very favourable one for agriculture, and the staple crops of the country produced a full yield. No very reliable statistics are yet obtainable of the actual out-turn, except as regards tea and opium, but the Customs returns show that the exports of staple products were as stated in the margin. Assuming that five-sixths of the indigo and three-quarters of the jute grown is exported, it may be reckoned that indigo is cultivated on 610,000 acres and jute on rather less. The price paid to the ryot for jute fibre has increased three-fold during the last ten years, and, though the European war caused a falling off during the year under review, the trade is yearly increasing rapidly, and the crop is a most lucrative one for the grower. In indigo cultivation the native landholders seem to be in some places supplanting Europeans.

	Tons exported. 1869–70.	1870–71.
Rice	373,050	430,350
Jute	171,950	167,150
Seeds	175,500	297,685
Indigo	2,942	3,676

Tea.

The area under tea cultivation in Bengal was estimated at 67,000 acres, against 62,000 in 1869–70; Cachar alone contributing 24,000, and Seebsaugar district in Assam 15,745 acres. The out-turn may be estimated at 11,700,000 lbs., more than four millions of

which came from Cachar, nearly 3,200,000 lbs. from Seebsaugor, and 1,700,000 lbs. from the Darjeeling gardens. The tea gardens gave employment during the year to more than 70,000 labourers. Tea industry appears to be in a thriving condition, and it is stated that, while a number of purely speculative gardens have been closed within the last few years, the *bonâ fide* undertakings are being managed more successfully and more economically than before.

Mineral produce.

Iron is found in many places in the western portion of the lower provinces, but its production has been as yet but very partially developed. The most important mineral product of Bengal is coal, which is to be found in Western Bengal, in the laterite range skirting the alluvial valley. Forty-four mines are at work, and the out-turn had increased from less than 300,000 tons in 1858 to more than 600,000 tons in 1869. Indian coal is used exclusively by all the railways having their termini in Calcutta.

Trade.

Trade in Calcutta has of late years been depressed, owing mainly to the reaction that followed too great speculation in tea and cotton, and in 1870 it was further affected by the European war, which seriously diminished the export of silk, jute, shawls, and other articles. The only means at present available for furnishing statistics of trade are the custom house returns at the ports and the railway returns in the interior. The figures given in the margin show a net increase of 1,394,548*l.* in the total value of the dutiable and free imports and exports of the year. There was a decided increase in piece goods imported, and the exports of seeds and grain increased nearly twofold. The American trade was very flourishing; the trade with Australia showed a considerable decline in imports, but an advance in exports.

PORT OF CALCUTTA.

	1870–71.	1869–70.
Imports.	—	—
Dutiable -	£16,305,905	£13,964,051
Free - -	4,469,174	7,233,562
Exports.		
Dutiable -	7,017,717	5,681,436
Free - -	21,113,349	20,632,548
Total -	£48,906,146	£47,511,598

Ecclesiastical.

The diocese of the Bishop of Calcutta comprises the whole of British India, excluding Bombay and Madras. The Ecclesiastical Establishment for the lower Provinces numbers 19 chaplains of the Church of England, besides two chaplains of the Church of Scotland and 14 ministers furnished by the Additional Clergy Society.

Education.

The account of the year's work as regards Education is preceded in the Bengal report by a comprehensive description of the Educational institutions of the province and of the systems pursued in them. It is quoted for the purposes of this report nearly *in extenso*.

The Calcutta University.

The Calcutta University is, strictly speaking, an imperial rather than a provincial institution, being a corporate body governed by a syndicate of its own, consisting of the Vice-Chancellor and six fellows, elected yearly by the four faculties (of arts, law, medicine, and engineering) into which the senate is divided. The senate consists of the Chancellor, the Vice-Chancellor, and the whole body of fellows, all of whom are appointed by the Governor-General in Council. The entrance examination of the University is open to all persons who have attained the age of sixteen years. A very large number of those who pass this examination proceed no further with their studies, as a certificate of having so passed is regarded as a sort of diploma in itself and a passport to employments in which a knowledge of English is required. Those students, however, who after passing the entrance examination wish to proceed further, are compelled to enter one of the colleges or schools affiliated to the University. Of the institutions affiliated to the University, about half are in the province of Bengal, while of the rest one is at Colombo, and the others are scattered over various parts of Upper India.

Faculty of Arts.

The entrance examination is carried on simultaneously in a large number of different places, the papers being all examined and marked in Calcutta. An under-graduate after passing must study two years in an affiliated institution before he can go in for the first arts or "little-go" examination, and again for two more years before he is eligible for the degree of B.A., for which there is another examination. There is also a further honour examination. All who pass it get the degree of M.A., but only those who pass within a specified time get honours. These are the examinations and degrees in the faculty of arts. Various licenses and degrees are also given in the remaining three faculties of law, medicine, and civil engineering; but it is unnecessary to describe them at length, as they do not at present affect more than a very small number of schools and colleges throughout the province.

The other faculties.

General colleges.

Of the institutions affiliated to the University, the first to be mentioned are the general colleges, or those which instruct in the course of the faculty of arts. Of

BENGAL.

these colleges, there are eighteen altogether; eleven being government institutions, while five receive grants under the grant-in-aid rules and two are unaided. The grant-in-aid colleges are all kept up by religious societies. Next to these come the

Special colleges.

special colleges, under which term are included law classes attached to general colleges. Of such special colleges there are eleven in all, one being devoted to the study of medicine, nine to law, and one to engineering. They are all Government institutions. The Calcutta School of Art, which is devoted to the study of drawing and kindred arts, might also be, but is not, included in this class, probably because its teaching does not correspond with the course of any faculty of the University. The

Madrasahs.

only other exceptional institutions which have to be mentioned are two Madrasahs, situated at Calcutta and Hooghly respectively. They are schools intended mainly for the purpose of affording instruction to Mahomedans in Persian and Arabic as well as English. The former of them was founded by Warren Hastings, and the latter is

English schools.

endowed from the estate of the late Mahomed Mohsin. Of the schools spread all over the country, the higher class English schools are those which educate up to the standard of the University entrance examination. Middle class English schools educate

Vernacular schools.

up to a standard two years below that of the entrance examination. Vernacular schools are divided into middle and lower class schools, the course of a middle class vernacular school occupying about six, and that of a lower class only four years.

Normal schools.

Besides these there are in several districts normal schools in which masters are trained for vernacular schools, as well as a few schools for girls.

Financial classification.

Classified according to their financial position, the institutions of Bengal fall under three heads, viz. Government institutions, institutions aided under the grant-in-aid rules, and institutions otherwise aided. This latter class includes the improved village schools or patshalas which have recently been established in several districts, and a small number of institutions to which special grants were made before the introduction of the grant-in-aid rules.

Scholarships.

A very important auxiliary to the schools of the province is furnished by the system of scholarships, which brings the best instruction that is provided to some extent within the reach of the poorest students with the requisite industry and ability

Vernacular.

to profit by it. Vernacular scholarships of Rs. 4 a month, tenable for four years, are distributed every year to the number of ten in each of the larger and five in each of the smaller districts. They are open to the pupils of middle-class vernacular schools only. The rules as regards age and attainments vary in different districts, but everywhere the course comprises text-books of literature and grammar in the several vernaculars, and vernacular composition, with history, geography, arithmetic, Euclid, natural philosophy, political economy, and study of the measures for the preservation of health. The whole of the examination is conducted in the vernacular. As an instance of the effect which they sometimes produce, it may be mentioned that it was a scholarship of this class which first brought up from an obscure village to the Dacca school Anunda Mohun Bose, who is at present distinguishing himself as a mathematician at Cambridge. An equal number of vernacular scholarships of the

Minor.

same value, tenable for a year in a normal school, are also annually distributed. Besides these, 100 minor scholarships, of Rs. 5 a month, are yearly given away. They are tenable for two years in zillah and other higher class schools. They differ from

Junior.

vernacular scholarships chiefly in requiring some knowledge of English. Junior scholarships to the number of 160, worth Rs. 18, 14, and 10 a month, are given away each year at the University entrance examination, a certain number being allotted to

Senior.

each educational circle. They are tenable for two years in any affiliated institution. Forty senior scholarships, worth Rs. 32, 28, and 20 a month, are given away at the fine arts examination, which are also tenable for two years at any affiliated college.

Special.

There are also a small number of special scholarships for students of Sanskrit, Arabic, medicine, and engineering, and a few privately endowed scholarships, which are not of sufficient importance to require separate mention.

Indigenous patshalas.

Besides the educational institutions which to a greater or less extent are under the control of Government, there are also a very large number of indigenous village schools (called patshalas among Hindoos and maktâbs among Mahomedans) which give elementary instruction in reading, writing, and arithmetic. Their exact number is not known, but the smallest estimate makes them six or seven times more numerous than the schools and colleges controlled by Government. Even of those boys who become pupils of schools under the control of Government, a large part, if not the majority, commence their studies in a patshala.

Number of pupils.

Turning to the year's results, the number of pupils under instruction in schools and colleges supported by or receiving aid from the State, shows for the first time a

considerable decline, namely, from 170,713 to 163,854. The Director of Public Instruction considers that this falling-off, in the absence of any other exceptional adverse influence, must be attributed, partly to the financial restrictions which put a stop to all new grants for eleven months of the year, and partly perhaps to apprehensions that the Government policy in regard to education is undergoing change. The Government have however made it clear that, while primary education is to be heartily promoted, high-class education will still receive full support. BENGAL.

Simultaneously with a decrease in the number of students, there was an increase of 39 in the number of institutions supported by or receiving aid from the State, the total having been 4,228 in 1870-71 against 4,189 in the previous year. Among the new schools established during the year, 11 were vernacular Government schools, and 75 were vernacular aided schools and patshalas. At the same time schools of other classes have decreased in number, especially aided English middle class schools, which show a falling off of 35. Schools.

The aggregate expenditure of the department during the year was 319,882*l.*, of which 186,598*l.* is shown as contributed by the State, and 133,284*l.* from fees and subscriptions. Of the total income from local sources 74,173*l.* was derived from fees, showing an increase of 1,229*l.*, in spite of the falling-off in the number of pupils in almost every class of schools. Expenditure.

Looking to the results of the educational system which has been pursued for now nearly 20 years, the contrast between the very rapid growth of higher and middle class education and the sterility of lower class education in Bengal is striking. The reason appears to be that higher education is looked to as the means of obtaining clerical employment, especially under Government, while lower class education, with no such immediate inducement, has from the first been supported simply as a means of advancing to higher education, and has been little valued for its own sake. Another point to be noticed is the fact that the Government system, which has proved so congenial to the Hindu, has failed with the Mussulman. Hinduism exerts little or no influence on the intellect of its adherents; it is looked on as a national and social system; and as long as the negative result is obtained of the Hindu attaching himself to no other system, the community is satisfied, especially if the ex-pupil will occasionally conform to the time-honoured ceremonies and rites of his people. This result is precisely what the Government schools lead to, and even the missionary schools, though their object is different, rarely attain any other; hence the Hindus have accepted the system of education offered them with the greatest alacrity, and their religious belief has exercised but an infinitesimal influence in keeping them back. With the Mahomedans the case is very different; they have a religion and a literature of their own, and from the first have looked upon the Government education with aversion. Even the few who do break through these barriers are invariably distanced in the race by their Hindu rivals. The Hindu is quite content with learning Bengalee and English; he only adds Sanscrit when called upon to do so by his teachers. The Mahomedan, on the other hand, cannot get on without the languages handed down by his race; Persian is to him what Latin is, or rather was fifty years ago, in Europe; to be ignorant of it would be at once to abdicate the position of an educated man; while Arabic takes the place of Greek. Thus weighted at the outset, Mahomedan boys are again at a disadvantage in their habits and mental structure. Such Mahomedans as are sprung from the invading races resemble Europeans more than do Hindus, in maturing intellectually more slowly and in being far less prone to study and more inclined to physical exertion. In later years this is no disadvantage, being often the contrary, but at school it naturally discourages them, and causes them to be distanced in the race. Unfortunately, though the backward state of education among the Mahomedans, and their consequent discontent on this subject, is thus easily explicable, it is not equally easy to see how it is to be equitably remedied. One of the first acts of the present Lieutenant-Governor was to appoint a commission, presided over by the late Mr. Norman, to give effect to the recommendations of a committee which had examined the constitution of the principal places of Mahomedan education in Calcutta, and the subject continues to engage the earnest attention of Government.

With regard to female education, though there was a falling off during the year in the number of girls attending schools, there are not wanting hopeful signs that it is really slowly gaining ground. One inspector says, "Female education cannot be "forced. We must look to educated natives to initiate all progressive measures, "without whose thorough support Government attempts will prove abortive. Such "support will be given as soon as it is the interest of the educated classes to give it, "and not till then." And then he goes on to say that the Zenana Education Society

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in Dacca, the desire springing up among the educated to have educated wives, the encouragement given to female authorship, the pride a husband takes in his wife's literary productions, are all indications of the growing tendency of the educated classes. Moreover, the practice of allowing girls to remain at school even after marriage is becoming more common.

Medical.

The Mofussil dispensaries and charitable hospitals exhibit a gradual and healthy growth. In five years their income has increased from 23,796*l.* to 29,478*l.*, the proportion received from native subscriptions having in the same time increased from 14·23 to 21·15 per cent. The government contribution in 1870 was 41·45 per cent of the whole, and the balance was obtained from European subscriptions and local funds. Comparing the year under review with 1869, the number of patients treated increased from 385,812 to 402,441, and the number of dispensaries from 155 to 159.

The medical institutions in Calcutta are the following: (1.) The Medical College Hospital, the chief seat of medical education in India, treating some 4,000 in-door and 45,000 out-door cases, and presided over by a principal and a large staff of European professors and Native teachers. (2.) The General Hospital, for persons of European extraction, receiving some 2,500 patients annually. (For these two hospitals a nurses' institution was formed some years ago.) (3.) The Municipal Police Hospital. (4.) The Municipal Pauper Hospital, for the ordinary sick poor of the town of Calcutta, through which about 5,500 patients pass annually. (5.) Calcutta Native Hospital, with its dependent dispensaries, which treated during the year 1,400 in-door and 153,819 out-door patients. (6.) The North Suburban Hospital, designed to meet the wants of the sick poor in the northern suburbs of Calcutta. There are, besides, two lunatic asylums in Calcutta, and four in the interior of the province.

Much valuable information continues to be elicited by means of the Sanitary Commissioner, aided by the district officers throughout the country, on the numerous questions bearing in any way on the sanitary condition of the people, but great results must not be looked for until the latter are able to appreciate and supplement the efforts that are being made for their welfare in this direction. Quoting from the report of the Commissioner, "the insanitary conditions of the population, towns, tanks, water, "and stagnant watercourses of the districts of Bengal Proper are so glaring that they "can scarcely be said to require a special officer to point them out; but they are at the "same time so universal and so deeply seated, that it would require the entire revenues "of the whole province to remove them in a single district, and they are entirely "beyond the powers of Government or its thinly scattered agency to cope with, without "the active co-operation of the people themselves. In this sense sanitation must be "said to be premature, or at least in its infancy, in Bengal: superintendence and "science are not wanting, but money and the intelligent consent of the people."

THE NORTH-WESTERN PROVINCES.

NORTH-WESTERN PROVINCES.

The territories under the administration of the Lieutenant-Governor of the North-western Provinces are nearly equal in size to Great Britain, having an area of 82,663 square miles, exclusive of the small district of Ajmere in Rajpootana, which was transferred to the control of the Government of India in April 1871. They contain more than thirty millions of people, or 361 to the square mile, of whom about 85 per cent. are Hindoos, 14 per cent. Mussulmans, and the remainder Christians, Buddhists or Jains, and aboriginal tribes. About 60 per cent. of the total population are agriculturists. The shape of the province resembles an irregular crescent, whose western extremity reaches the snow line of the Himalayas, while the eastern extremity stops short at the base of the mountains at the frontier of Nipál. In the hollow of the crescent lies the province of Oudh. The larger and more important portion of the North-western Provinces is the alluvial plain to the north of the Great Jumna-Ganges Valley, nearly the whole of which is culturable, and most of it very fertile. The country to the south of the valley is different, being hilly and broken, covered with wild jungle, and traversed by rain rivers, which become dry or nearly so in the winter and spring. The third geographical division is the mountainous region to the north, the province of Kumaon and Gurwhal. This region is rich in mineral wealth, possesses extensive forests, and is in many places suitable for the growth of tea. The *Terai* is a deadly swamp at the foot of the Himalayas, formed by the numerous springs issuing from the waterbearing strata of the range which here touch the surface, and is for the most part covered with forest and jungle.

The province contains seven commissionerships, which are divided into 36 districts. These districts are divided into 440 sub-districts, the sub-districts into "hundreds," and the "hundreds" into townships. Rampore and Tehree are the only two native states

with which the Governor of the North-western Provinces has direct relations. Allahabad, the capital, is situated at the junction of the Ganges and Jumna. The Lieutenant-Governor is aided by a Revenue Board in all matters relating to the revenue and the land, and in the administration of civil and criminal justice by a High Court. North-western Provinces.

The season generally throughout the province was a most favourable one. Food was cheap, no difficulty was met with in the collection of the land revenue, and all trace of the famine of 1868 disappeared. Two measures of special importance engaged the attention of the Government during the year,—the Infanticide Act, and the introduction of the financial change known as the Decentralization Scheme, which came into force in the year following the one under review.

The Act directed against female infanticide, which became law in March 1870, resulted from the realization of the fact that the crime prevailed to a great extent in certain districts. The Act provides that clans or districts proved to be guilty shall be proclaimed, and become subject to certain "Rules of Repression" under which births and deaths are registered, and establishments are entertained for the prevention and detection of the crime at the cost of the guilty parties. A committee was appointed; selected officers, native gentlemen, and literary societies were called upon for their views and suggestions in framing these rules, and it was finally decided that the existence of only 40 girls among a child population of 100 was a fair test of the prevalence of the crime, and that in districts where the proportion of girls was so low as 25 per cent. severer measures of precaution should be adopted. A preliminary investigation conducted by the magistrates of all the districts implicated several hundred thousands of the population. In the cold weather a more careful census was taken, which, while it exonerated some villages before believed to be guilty, established beyond question the guilt of many others only suspected, or not even suspected, before, and immensely increased the area of the operation of the law. Two principal reasons are assigned for the extraordinary prevalence of female infanticide in the province. The first is the great expense attending the marriage of a daughter. As it is the aim of every Rajpoot to marry his daughter to a member of a clan superior in rank to his own, and as the dowry increases with the status of the bridegroom, it follows that the marriage of two or three daughters would ruin a parent in good circumstances. The second reason is that when under the Mahomedan rule Rajpoot girls were frequently carried off to fill the harems of the local governors or of the nobles of the court, the sense of dishonour overcame the natural instinct of parental affection, and the custom of female infanticide became so ingrained in the mind of the people that it has survived the danger it was intended to obviate. Infanticide Act.

The fixed sum of 640,000*l.* allotted to the North-western Provinces under the decentralization scheme of the Government of India fell short of the expenditure of the year 1870–71 by about 46,000*l.*, and of the estimated expenditure of 1871–72 by 102,000*l.*, there being in the latter year an imperative necessity for a large increase under the head of Public Works. It was found that the whole of this deficit could be covered by an extension of the local cess in the temporarily settled districts, and by the acreage tax and value of the police lands in the province of Benares. The re-imposition of the license tax, which would have been attended with considerable inconvenience, was therefore abandoned. Decentralization scheme.

An attempt was made to renew the local manufacture of salt by solar evaporation, which had been prohibited in the North-western Provinces from the year 1843. It was found, however, that the hereditary salt workers had taken to other trades, and that the people, having become accustomed to the purer salts of the west, refused to buy the bitter home-made salt at any remunerative price. The experiment was therefore abandoned.

Some uneasiness was caused by the Mohurrum festival of the Mahomedans and the Ramnoumee of the Hindoos clashing. At Bareilly, where religious feeling is strong, a possible collision between the rival parties was guarded against by allowing neither procession to pass through the main street of the town, and by assigning to each a different route; and with similar care throughout the province the festivals passed off quietly.

The year was a very favourable one for the collection of the revenue. The gross receipts were about 145,000*l.* better than in 1869–70, and the net result, owing to decreased charges, mainly under the head of Public Works, was a surplus of 3,476,000*l.* against one of 3,052,000*l.* in the previous year. Revenue.

Under the principal head, that of land revenue, there was an improvement of 45,000*l.* During the last 16 years, in consequence of the expiration of the 30 years Land.

NORTH-WESTERN PROVINCES.

settlements made between 1804 and 1844, nearly the whole of the province has undergone a revision of settlement, which, at a cost of 516,968*l.*, has produced a net annual enhancement amounting to 89 per cent. of that amount. There has for some time been an increasing number of partition suits instituted, with the view of procuring a separation of interests and of possession in the land. The cause of this desire for greater independence of action and clearer individuality would seem to be the destruction of the ancient forms of society and the dissolving of the links of the common life of villages and of clans by the encroachments of modern civilisation and legislation. As the family and tribal ties grow weaker, the joint system of tenure must also be weakened, and gradually individual ownership will to a considerable extent replace the village community. So far as the movement is partially dictated by a suspicion of the accuracy of the village papers, and a consequent uncertainty as to individual rights, the importance of periodically testing the village records has been enjoined upon the revenue officers.

REVENUES AND RECEIPTS.	1870–71.	Compared with 1869–70.		EXPENDITURE.	1870–71.	Compared with 1869–70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land Revenue	4,135,518	45,629	—	Refunds and Drawbacks	35,183	12,907	—
Tributes from Native States	168,928	54,659	—	Land Revenue	417,712	—	13,428
Forest	36,407	—	36,205	Forest	67,589	25,248	—
Excise on Spirits and Drugs	207,002	31,745	—	Excise on Spirits and Drugs	32,867	—	6,258
Assessed Taxes	303,156	151,166	—	Assessed Taxes	1,495	667	—
Customs	49,898	59	—	Salt	107,476	32,653	—
Salt	496,155	7,427	—	Stamps	16,299	—	731
Stamps	331,081	—	27,110	Allowances under Treaties, &c.	68,305	—	7,983
Law and Justice	128,201	25,827	—	Total Direct Claims on the Revenues	746,926	71,475	28,400
Police	48,286	—	16,090	Administration	123,837	1,395	—
Education	5,314	—	305	Minor Departments	7,658	7,658	—
Interest	2,514	2,453	—	Law and Justice	423,776	4,554	—
Miscellaneous	16,199	—	10,170	Police	340,061	—	43,380
Public Works :—				Education	93,348	—	15,577
Miscellaneous	24,112	—	8,253	Ecclesiastical	19,652	242	—
Irrigation	247,465	—	76,733	Medical Services	59,337	8,707	—
				Stationery and Printing	30,625	7,755	—
				Political Agencies	36,343	—	221
				Miscellaneous	16,681	—	70,714
				Pensions, &c.	44,416	6,004	—
				Allotments for Provincial Services	28,246	28,246	—
				Public Works, Ordinary :—			
				Public Works	582,244	—	192,822
				Supervision and Cost of Land for Railways	10,814	—	487
				State Railways	2,657	2,504	—
				Interest	1,342	—	3,325
				Public Works — Extraordinary	156,207	—	62,855
	£ 6,200,236	318,965	174,866		£ 2,724,170	138,540	417,781
		Net Increase £144,099				Net Decrease £279,241	

By an Act of 1869 power is given to collectors to save embarrassed estates from the hands of creditors by making private arrangements or raising the money on mortgage. Despite many difficulties in the way of making these arrangements, the Lieutenant-Governor has enjoined on district officers the due exercise of the powers entrusted to them, being of opinion that grave political evil may sometimes result from transfers which exclude old and influential families from their hereditary possessions, to say nothing of the obvious economic objections to the spectacle of a pauperised gentry continuing to reside as cultivators on the lands of which they were once proprietors.

Excise and opium.

Native liquor is almost entirely made at distilleries which are under Government supervision. The number and locality of shops for its retail sale are fixed by the district officers. The monopoly of opium is farmed out in each district. The total receipts from all sources being 207,000*l.*, opium and drugs realised 98,900*l.*, and the sale of 481,986 gallons of native liquor the remaining 106,240*l.* The increase, amounting to more than 31,000*l.*, is due partly to the greater prosperity of the year, but partly also to an improved system of granting licenses and the imposition of a higher duty on spirits.

The decrease, amounting to 27,000*l.*, or 7 per cent., in the receipts from stamps is mainly attributable to the favourable season, which diminished the number of alienations of property, and to the imposition of a lighter duty on bonds, &c. for small amounts. That there was an improvement in the sale of ordinary commercial stamps is a further proof of the flourishing state of trade. The income tax was rated during the year at $3\frac{1}{8}$ per cent. on incomes above 50*l.* The total demand, amounting to 280,890*l.*, of which 2·5 per cent. only was unrealised, represents an income of 8,988,448*l.* Assuming the population of the province to be 30 millions, the incidence of the tax on the general population was $2\frac{1}{4}d.$, and affected rather more than 1 per cent. The number of persons assessed to the tax was 66,135, and on these the tax fell at the rate of 4·6 per cent. per head; 72 per cent. were assessed on incomes under 100*l.* a year. The inquiry into the accuracy of the assessments was conducted with the greatest care, and entailed a very heavy amount of work on district officers.

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Stamps.

Income tax.

With the cessation of scarcity, crime returned to its normal proportions, that is to say, the number of cognizable offences reported by the district police from having been 93,092 in 1869 fell to 73,677 in the year under review. Of offences reported, 58 per cent. were inquired into, and out of 100 persons arrested 76 were convicted. The efficiency of the force was undoubtedly somewhat impaired by the reduction of its strength, for financial reasons mainly, from 19,657 of all ranks to 16,266. The municipal police, who are paid and employed by the municipalities, were likewise reduced from 9,406 to 9,278. The village watchmen or chowkeedars who constitute the third class were at the same time reorganized in all but the six districts in which the old settlement is still current, their number being fixed at 51,900, and their cost at 180,246*l.* The total police force of all kinds may therefore be set down at 75,166.

Police.

The effects of the favourable season are no less visible in the work of the courts than in the annals of the revenue and police administration. Crime decreased and civil litigation received a stimulus from the prevailing prosperity, which made the recovery of debts from the poorer classes by legal process no longer hopeless.

JUDICIAL.

Criminal Courts.—The working of the criminal courts may be regarded as having been in every respect satisfactory during the year. The number of offences reported to the magisterial authorities fell from 124,314 to 109,339, a large proportion of which were of a very trivial character; 60,661 cases were prosecuted, and out of 114,399 persons implicated 78,132 were convicted and 34,741 were acquitted. The sessions courts had 2,960 persons committed to them, or about 400 less than in 1869, of whom 71·9 per cent. were convicted. Rather a larger number of appeals than usual was made to the sessions court against the decisions of the magistrates, but while the proportion of those which were successful was 27·4 per cent. in 1869, in the year under review it was 21·2 only. The High Court in its original jurisdiction had before it 23 criminal cases against 16 in 1869, and 105 capital sentences were referred to it for confirmation. The cases of 727 persons came before it in appeal, of which 68 per cent. were confirmed.

Civil Courts.—Only in the non-regulation districts of Kumaon, Gurhwal, and the Terai are the civil courts under the direct control of government. In the regulation districts they are subordinate to the High Court, and consist of the courts of the district judges, subordinate judges, and moonsiffs. While the court of the district judge is primarily a court of appeal, that officer has the power of withdrawing suits from the courts subordinate to him, and trying them himself. The other two courts have original jurisdiction only. Besides these regular courts there are seven courts of small causes possessing summary jurisdiction in suits limited to 50*l.* in value.

With the exception of the year 1861, when an impulse was given to litigation by the imminence of the limitation law, the number of suits instituted in 1870 was the largest on record, being 91,525, against 82,386 in 1869, and 74,608 in 1868. The fact that there was at the same time a great diminution in the value litigated (the average per suit being only 19*l.* 9*s.* 4*d.* against 21*l.* 18*s.* 6*d.* and 33*l.* 14*s.* in the two previous years) would make it appear that a large proportion of the suits were for the recovery of small sums lent during the time of scarcity. The work was disposed of with a fair amount of despatch.

The High Court, in the exercise of its original jurisdiction, had before it six cases only, but it disposed of 3,545 appeals. The value of the property contested during the year was over 1,800,000*l.*, to which the costs bore the proportion of 15 per cent.

Deeds are registered before the tehseeldars or sub-collectors, who receive half the registration fees up to 10*l.* per month, and a lower per-centage above that amount. The district judges are registrars, and the whole department is supervised by a special officer, the Registrar General. The number of instruments registered diminished from

Registration.

NORTH-WESTERN PROVINCES.

175,621 to 131,488, the decrease being attributable to the return of prosperity, and the consequently smaller number of loans, mortgages, and sales. The working expenses of the department were 58·7 per cent. of the gross receipts, which amounted to 28,900*l.*

Jails.

There are 41 jails in the province, of which six are central prisons, and there are besides 22 lock-ups for the detention of prisoners while their cases are undecided. Comparing 1869 with 1870, the total number of prisoners fell from 74,571 to 65,409, or 12·3 per cent., and the daily average from 18,587 to 18,089. There was a corresponding decrease from 98,647*l.* to 82,591*l.* in the cost of the department. It appears that about 61 per cent. are employed on jail labour, that 20 per cent. are ineffective through sickness, age, and other causes, and that only the small remainder, 19 per cent., are employed on work that directly reduces the expenditure, their manufactures realizing the sum of 11,871*l.* during the year under review.

Education.

The position of the officers of the Education Department was materially improved in 1870–71; certain concessions, though not to the extent desired, were made by the University of Calcutta with the view to the better representation of the north-west, and the promotion of the interests of the north-west students; and increased powers were committed to the education committees, under a new set of rules published in December 1870, which have already proved useful and give general satisfaction. These briefly were the principal events of the year. The total number of pupils under tuition was 204,103 (of whom 11,243 were girls) against 201,790 in 1869–70, when there were 10,719 girls, the increase being general throughout all classes of institutions, with the exception of the Tehseelee schools, where a temporary falling-off took place owing to the pay of the teachers, which had long been complained of as too low, having been raised by doubling the pupils' fees. This measure was in accordance with the principle which has been recently laid down, that elementary education has the first claims on state aid, but that the wish of the people for secondary, or higher, should be met by the contributions of the people themselves. Great assistance is given to the cause of education in the province by the labours of the various English and American missionary societies.

Public works.

The most important military works in progress during the year were those connected with the hill sanataria at Chukrata and Raneekhet. Military labour was here very usefully employed to a considerable extent. Rather more than half of the money devoted to civil buildings was spent on the public offices at Allahabad. Government House at Allahabad was completed. The imperial grant for the prosecution of public works was supplemented by local contributions to the extent of 166,217*l.*

Irrigation.

The total area watered by the canals of the province during the year was 1,050,808 acres, the ample rainfall having lessened the demand for artificial irrigation by some 38,000 acres. This area is still however larger by 67,000 acres than the area irrigated before the recent years of drought. The cultivation of the sugar cane continues steadily to increase; indigo, which took a great leap in 1869–70, fell off somewhat, and so did rice and cotton. The total direct income from all sources was over 255,000*l.* Deducting from this sum the working expenses, which amounted to 115,000*l.*, or 5,000*l.* less than in 1869–70, the net profits were nearly 6 per cent. on the entire capital invested in completed works. The only new work in progress is the Agra canal, on which 174,224*l.* had been expended at the close of the year out of an estimate of 530,000*l.* This canal, taken from the Jumna a few miles below Delhi, will water the districts of Delhi, Goorgaon, Muttra, and Agra, and being navigable it will open communication between Calpee, Agra, Muttra, and the country above Delhi. The Lower Ganges Canal, which was to be commenced forthwith, is a great project for the irrigation of the lower districts of the Doab and the relief of the old Ganges Canal, which will thereby be enabled to bestow more water on the districts lying between Hurdwar, its source, and Allygurh, where it will be cut off. This work will also afford a continuous line of navigation from Allahabad to Delhi, whence communication will be extended to the Punjab, besides opening out lines of trade between the most important commercial cities of the Doab. The entire system for the irrigation of the Doab will be completed at a cost of less than five millions sterling. It is estimated that the new canals will produce 8·3 per cent. on capital, and that the enhancement of land revenue will raise the returns to 13 per cent. Schemes are under consideration for Bundelkhund and Rohilkhund.

	Acres.
Sugar cane	112,141
Rice	96,479
Indigo	118,897
Cotton	35,070

Lower Ganges Canal.

Dispensaries.

Five new branch dispensaries having been established during the year, the province possessed, at its close 137, at which 19,635 in-door and 668,882 out-door patients received treatment. The cost of these institutions amounted to 20,485*l.*, about half of

which was borne by government. The province maintains, at a cost of a little over 3,000*l.*, two lunatic asylums, one at Benares and one at Bareilly, which accommodated 511 patients. Vaccination is conducted by 284 vaccinators acting under a superintendent and three assistant superintendents. The number of vaccinations performed during the year was 311,610, or rather more than one-fourth of the number of infants born. It is encouraging to learn that the importance of vaccination is beginning to be recognised in the native states. Great efforts are being made to introduce a reliable system for the registration of vital statistics. Conservancy receives attention in the large towns where civilisation has taught the people the advantage of cleanliness, but the villages remain unenlightened and indifferent. NORTH-WESTERN PROVINCES. Vaccination.

There are in the province 68 municipalities, whose affairs are managed by committees consisting of officials and native gentlemen of the place, in the proportion of two of the latter to one of the former. They have absolute power and control over the taxation and expenditure of their towns, subject only to the approval of the Lieutenant-Governor. Their aggregate income amounted to 165,461*l.*, out of which the police of the various municipalities were paid, and sanitary and useful public works promoted. The principal source of revenue is the octroi duty. Besides these 68 municipalities, which were created under the Act of 1868, a lower kind of self-government is enjoyed by 276 towns, containing a population of 1,425,981, under Act XX. of 1856, the main object of which is the provision of funds for the proper watch of the smaller towns, which though more than agricultural villages, are not ripe for municipal government. The Lieutenant-Governor looks most hopefully upon the results of the municipal system. Having met in his circuits nearly all the municipal bodies in the province, he is of opinion that a sense of independence and self-government has been very generally aroused among them, and that for the education of the native mind, and the development of political virtues, no agency has proved so powerful or given promise of such good results. Municipalities.

The number of vernacular newspapers published in the province increased from 26 to 33, and their circulation from 7,064 to 7,509 copies. Among extracts from English papers and local grievances and intelligence, original articles of value sometimes appear, and some papers, notably the Allygurh Institute Gazette, under the editorship of Syed Ahmed Khan, devote themselves with considerable ability to the discussion of educational and social questions. Newspapers.

CENTRAL PROVINCES.

The Central Provinces are about equal in extent to Great Britain and Ireland, with one-third of the population. They became a separate administration in 1861, and are under the authority of a Chief Commissioner. Their total area is computed to be 112,043 square miles, of which 84,006 square miles are British territory, and 28,037 the territory of native protected states. The extreme length of the province from north to south is 500 miles, and the extreme breadth from east to west 600 miles. CENTRAL PROVINCES.

By the Census of November 1866, the population including the native states was returned at 9,068,000 persons, or only 79 to the square mile, and though, of late years, there has been a considerable increase the province is still very scantily inhabited compared with other parts of India. The cultivated area is moreover small, little more than one-fourth of the British territory being turned to account, and more than one-half of the remainder being unculturable. The province is traversed by 2,090 miles of made roads, and by 442 miles of railroad.

For administrative purposes the province is divided into four commissionerships (Jubbulpore, Nagpoor, Nerbudda, Chutteesgurh), and these contain 19 districts, averaging 4,430 square miles in extent. There are 128 civil and revenue judges, and 216 magistrates of all sorts. The police force numbers 7,799 men for a population of about eight millions.

The native protected states are 15 in number. They have an extent of 28,037 square miles, and a population of 1,100,000. The gross revenue of the chiefs is estimated at 54,470*l.*, and the tribute they pay to Government amounts to 13,523*l.* They are not interfered with in the management of their states, but before carrying out sentence of death in a criminal offence they are required to obtain the sanction of the Chief Commissioner, and in the case of the minor chiefs, sentences of imprisonment exceeding seven years must be referred to the same officer. The Rajah of Karond and the chief of Nándgáon are commended for their good government. In Patna and Khairagarh the active interference of the British Government was called for to restore order, and in both cases it was found necessary to depose the reigning chief. Patna is a small state 2,500 square miles in extent, with a population of about 90,000. A long course POLITICAL. Patna.

CENTRAL PROVINCES.

of grievous oppression on the part of the Rajah culminated in 1869 in a rising of the Khonds, which was put down with great cruelty; promises of amendment were unfulfilled, and on the visit of the Deputy Commissioner of Sambalpur the charges of injustice of every kind brought to his notice were so numerous and so well founded that in January 1871 the Zemindars and heads of villages were informed that the state would be managed in future by the British Government. A summary land settlement for five years was made with them, the people agreeing to pay a much higher assessment than they had ever paid before, in consideration of being relieved from innumerable vexatious imposts. In Khairagarh the administration of justice had become merely a source of revenue, and there was everywhere great dissatisfaction among the cultivating classes. Since the country came into the hands of British officers a regularly organised gang of highway robbers has been broken up. The state adjoins the Bandára district of the Nagpoor division, and is conveniently situated for traffic. Being also compact and well settled, it is, though small, the wealthiest native state in the province, and pays a tribute of 4,700*l.* to the British Government.

Khairagarh.

Compared with its predecessor the year 1870–71 was an uneventful one in the Central Provinces; it was "one of rest and quiet, of silent renovation and agricultural prosperity." Ample rains and a second good harvest following on that of 1869–70 repaired the disasters of the two previous years of famine, and with the return of confidence to the agriculturists and grain dealers the population were relieved from the burden of high prices. Material prosperity was accompanied by an immunity from sickness, such as had not been known for years. Cholera, which in 1869, found easy victims among a weakly population, and carried off no less than 57,000 persons, was the cause of 109 deaths only in the year under review. There were fewer deaths from small-pox also, but on the other hand fever, the bane of the provinces, was as prevalent as usual. Two facts testified to the general well-being of the people, one being an increase in the number of marriage feasts,—the other a marked decrease in crime. With regard to the first, report states that until the famine was past, hardly any weddings or marriage processions were seen, but that in the spring of 1870 and again in 1871 the number and splendour of the marriage feasts were the subject of remark. For some years past, the population of the Nagpoor and Bandára districts have been migrating in considerable numbers to the province of Berar, a rough Census taken in 1870 showing that since November 1866 their numbers had decreased by 35,000, or about 9 per cent. While Berar was under native rule the contrary was the case, and it is only since that province came under British management, and especially since the cotton crisis led to a development of its great resources, and to an enormous increase of cultivation, that the people have gradually been returning to their own country. Other causes, moreover, have of late years given an impulse to the movement. A succession of bad harvests raised the price of food; the completion of the Nagpoor railway and the slackening of road works led to a smaller demand for labour, while the fact that emigration was largest from the small towns, which are the seats of the spinning and weaving trade, shows that this branch of industry suffered from the cheapening of English cotton goods, which followed on the opening of the railway between Nagpoor and Bombay. The good harvest of the year under review on the other hand had the effect of bringing back many of the labouring class, and when the report closed it appeared that emigration to any considerable extent had ceased. With larger experience, arrangements for the better preservation of forests have been made, which have given satisfaction to the agriculturists, and at the same time added to the Government revenue. With regard to the waste lands it is considered to be inexpedient, until the population of the country largely increases, either to encourage further sales or to grant clearance leases. The large margin of uncultivated land made over to the cultivators at the time of settlement is still to a great extent untouched, and to give clearance leases to all who apply would be to prevent the improvement of existing properties by what might seem to be Government competition.

Land.

The land revenue has been settled over 55,286 square miles, the settlement being granted for 30 years on 27,641 square miles, for 20 years on 26,213 square miles, and for 3 years on 1,432 square miles; out of an assessed area of 35,382,284 acres, little more than a third is cultivated, and about one-third more is culturable. The amount of cultivation compared with the area assessed and the rate at which the assessment falls on the land varies with the density of population and the quality of the soil. In Nagpoor, for instance, one-half of the assessed area is cultivated, and the rate per acre is 1*s.* 8*d.* on cultivated land, 1*s.* 3*d.* on land culturable, and 11*d.* in the entire area assessed. In the district of Mandla, on the other hand, less than a quarter of the assessed area is cultivated, and the rates are so little as $4\frac{3}{4}d.$, 2*d.*, and

1*d.* respectively. The greater part of the land is held by small Zemindars or Málguzárs as they are more generally termed, with whom the settlement of villages has been made.

Police.

The police in 1870 numbered 8,340 officers and men, being about 1 to 10 square miles and 942 persons. Each district has its own separate force under a superintendent, whose immediate superior is the Deputy Commissioner. The railway police on the Great Indian Peninsular Railway are under the control of the superintendents of the several districts through which the line passes, while those on the East Indian line are a distinct force unconnected with the ordinary police of the country. The entire force of the province is supervised by an Inspector-General. There was a very large diminution of crime in 1870, the returns being rather more favourable than in 1868, the year before the famine. The number of cognizable cases reported by the police was 21,214. In addition to their ordinary duties the police undertake the registration of vital statistics.

Criminal Justices.

The chief criminal court in the province is that of the Judicial Commissioner. It is a Court of Appeal and Revision only, and has referred to it for sanction all sentences of death passed by the Courts of Session. These latter are four in number, and are presided over by the Commissioners of Division, who try all cases committed to them by magistrates, and can pass the most severe sentence allowed by law. The magistrates of districts are 19 in number. In addition to their ordinary magisterial duties they can try all cases, except those punishable with death, and can inflict any punishment up to seven years imprisonment. Below these there are magistrates and subordinate magistrates, both stipendiary and honorary, and justices of the peace, numbering in all more than 200.

The great usefulness of the native honorary magistrates as a body is again worthy of remark. In the year under review, 28 per cent. of the persons who came before the magistrates were tried by these gentlemen, their industry being the more creditable because it is quite optional with them to refuse to take up more cases than their leisure and inclination permit them to decide.

The total number of criminal offences reported, including those cognizable by the police, was 32,582, against 45,904 in 1869, and only 39,748 persons were brought to trial, compared with 53,183 the year before. Conviction was obtained in 65 per cent. of the cases.

Civil Justice.

Judicial Commissioner	1
Commissioners	4
Deputy Commissioners	19
Assistant Commissioners	28
Tahsíldárs	37
Náib Tahsíldárs	7
	96

The annually increasing litigation of the province required an addition of four courts of Assistant Commissioners during the year under review, three of the lower courts being at the same time reduced. The number of courts exercising civil jurisdiction was therefore 96, besides six courts of small causes. The judicial officers are executive officers as well, but a system was introduced into the Central Provinces in 1868, by which certain officers are set apart exclusively for judicial work, and thus enabled to devote all their time to it. For the administration of civil justice the system is stated to have proved perfectly successful.

Since 1862, when the number of suits was 24,666, they have steadily increased from year to year, until in 1870 as many as 72,183 suits were instituted, or 12½ per cent. more than in 1869. At the same time their aggregate value of a little over half a million sterling was larger by 26 per cent., and the average value (7*l.*) was also a higher one. While, therefore, in the North-West Provinces there was in 1869 one civil case for 419 of the population, and in Oudh one for 408, there was in the Central Provinces one suit for 126 persons, a number only surpassed by the Punjab, where however the rent law suits are chiefly classed with civil suits, while in the Central Provinces they are excluded. The reason for this extraordinary difference is not explained. With regard to the character of the litigation of the year it appears that 89 per cent. of the suits were for sums not exceeding 10*l.* in value; that more than half were for debt secured by bonds; and that their cost was a little over 11 per cent. of their value, or more than two per cent. lower than in 1869. Forty-one per cent. of the work was performed by the Courts of Assistant Commissioners; 42 per cent. by the Courts of Tahsíldárs and Náib Tahsíldárs; and 17 per cent. by the Courts of Small Causes.

Prisons.

The prison requirements of the province are amply provided for by three large central gaols, constructed to contain more than 1,000 prisoners; a district gaol

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at the head-quarters of each of the larger districts, and a lock-up at the head-quarters of each of the smaller ones. The total prison population during 1870 was 10,205 persons, of whom 9,184 were males and 1,021 females; the daily average number being 2,737 and 204 respectively. It is curious that while the Mahomedans form only 2½ per cent. of the general population they contribute 12 per cent. of the prison population. The average cost of each prisoner was 6*l*. 10*s*. 9*d*. Prisoners may by industry and good conduct earn a remission of one month in every year of their sentence, and convict warders appointed for their good conduct may earn two months remission. Besides this a certain share of the profits realized from the work performed by prisoners beyond the limit assigned as a man's proper task is credited to the prisoner and made over to him on his discharge.

The Jubbulpore School of Industry is an industrial institution rather than a gaol. Established in 1837 with the object of employing and instructing Thug and Dacoit prisoners and approvers, whom it was not considered expedient to release from surveillance, it continues to be a place of confinement for those classes, but the discipline is by no means so strict as in the regular gaols. The approvers, their wives and families, numbering in all 2,300 persons, live in what is known as the Thugí village, which is surrounded by a wall. The Thug and Dacoit prisoners, who numbered 51 at the close of the year, are confined in a separate gaol attached to the institution. The school maintains its reputation for the manufacture of tents and carpets.

Military.

The military force stationed in the province in the year 1870 numbered 9,259 officers and men, the Bengal and Madras armies constituting about equal proportions, and a small detachment of the Bombay army forming the garrison of the Fort of A'sírgarh.

FINANCE.

The financial result of the year was very satisfactory. Whereas in 1869–70 there was a decrease in the receipts of 30,561*l*. compared with 1868–69, in the year under review there was a net increase amounting to 86,447*l*., and the general result was a surplus of revenue over expenditure of 265,173*l*. to set against the surplus of 56,849*l*. shown in 1869–70. The amount realised from local sources, in addition to imperial receipts, came to 147,600*l*. The sanction of Government to the exclusion from imperial revenues of the Pandhri tax, a tax levied on non-agriculturists, and its appropriation to municipal purposes, was noticed in last year's report, and took effect for the first time in the year under review.

Local Funds.

REVENUES AND RECEIPTS.	1870–71.	Compared with 1869–70.		EXPENDITURE.	1870–71.	Compared with 1869–70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land Revenue	604,853	13,356	—	Refunds and Drawbacks	18,769	—	1,021
				Land Revenue	87,336	—	10,106
Tributes, &c. from Native States	3,156	1,138	—	Forest	30,631	—	16,794
				Excise on Spirits and Drugs	5,298	412	—
Forest	65,812	24,210	—	Assessed Taxes	5	—	94
				Salt	38,223	—	11,349
Excise on Spirits and Drugs	100,019	7,079	—	Stamps	2,852	—	85
				Allowances and Assignments under Treaties, &c.	71,660	1,243	—
Assessed Taxes	66,253	9,656	—				
				Total Direct Claims and Demands on Revenues	254,774	1,655	39,449
Customs	10,591	3,819	—				
				Administration	45,444	—	36
Salt	116,940	1,777	—	Minor Departments	3,343	3,343	—
				Law and Justice	104,675	7,052	—
Opium	—	—	167	Police	139,489	2,121	—
				Education, Science and Art	24,895	—	1,376
Stamps	99,307	11,419	—	Ecclesiastical	3,851	282	—
				Medical Services	30,063	9,932	—
Law and Justice	26,508	1,777	—	Stationery and Printing	3,739	—	68
				Political Agencies	319	—	206
Police	26,025	11,864	—	Miscellaneous	7,207	—	5,410
				Pensions, &c.	13,626	806	—
Education	—	—	89	Allotment for Provincial Services	11,994	11,994	—
				Public Works	221,135	—	112,590
Interest	1,000	444	—	Public Works, Supervision and Cost of Land for Railways	674	73	—
Miscellaneous	5,887	1,182	—				
Public Works, Miscellaneous	4,050	—	1,018				
£	1,130,401	87,721	1,274		865,228	37,258	159,135
		Net Increase £86,447		Surplus	265,173	Net Decrease £121,877	
					£1,130,401		

The net outlay on "ordinary" public works during the year amounted to 221,000*l.* The cost of establishments, including certain expenses attendant upon Railway and Irrigation Surveys, properly belonging to the head of "extraordinary" works, was 26·2 per cent. on the total outlay. The barracks connected with the hill sanitarium at Pachmarhi, on the Santhona range, which are to accommodate 200 men, were commenced in February 1871, and are by this time complete. At Ságar the double-storied barracks and hospitals were finished, at a total cost of a little over 90,000*l.* With regard to irrigation several surveys were made during the year, and the Kanhan scheme, described in last year's report, was further elaborated. The present scheme, if carried out, will cost 1,020,000*l.*, and will command a total area of 881,435 acres, and a cultivated area of 558,000 acres, or 840 square miles. Estimating the area which will take the water at 438,000 acres, the returns will amount to 73,700*l.*, or about 7¼ per cent. on the capital outlay. It is stated that the scheme would immensely benefit the Nagpoor country, adding, at the lowest estimate, eight shillings per acre, or 200,000*l.* altogether, to the value of the out-turn. In years of drought the benefit would be incalculable. The most important work connected with communications, and the most extensive item under that head, is the bridge crossing the Kanhan river, near Nagpoor, consisting of 12 arches of 80 feet span each. The work was making good progress, two arches having been keyed and their backing completed at the time the report was sent in. The chief engineer, in conclusion, speaks in high terms of the staff serving under him. He is of opinion that failures are things of the past, and feels convinced that the interests of Government, the works under construction, and the credit of the service are safe in their hands.

	£
Military - -	72,955
Civil - -	14,096
Agricultural -	1,135
Communications -	110,576
Establishment -	58,796

The area under cultivation in 1870 was considerably larger than in 1869, being estimated at 13,721,807 acres, 52 per cent. of which was taken up by rice and wheat in about equal proportions, 35 per cent. by other food grains, and 5 per cent. each by cotton and oil seeds, opium occupying the small area of 5,085 acres. The returns of agricultural stock, which do not pretend to be more than approximate, put down the number of cattle at 520,000, sheep and goats at 510,000, carts 240,000, and ploughs 292,000. Cattle disease is, it appears, very prevalent in the province, and gives rise to large losses yearly. The average rent per acre is highest for opium (5*s.* 9*d.*), and lowest for the inferior grains (1*s.* 3*d.*), wheat land averaging 2*s.* 8*d.*, and rice and cotton 1*s.* 7½*d.* and 1*s.* 10¾*d.* respectively. The average produce per acre is for rice 548 lbs., wheat 430 lbs., the inferior grains 370 lbs., cotton 75 lbs., and opium 5 lbs.

Rent.

Produce.

The number of acres on which cotton was grown was 768,936 acres in 1870–71, as compared with 824,027 acres the year before, the decrease being chiefly attributable to the uncertain price of cotton at the time of sowing and to the high price of food grains. Though the July rains were excessive, and the October rains also did some injury to the crop, the out-turn was 38,287 bales, or only 307 bales less than in 1869–70; and it is believed that, owing to the moderate prices, the local demand was larger than usual, and less therefore left the province. Experimental cotton cultivation continues to be undertaken by Government, but there is little to report of the results during the year under review. The management of the Government forest lands is shared by the district officers and the Forest Department, the latter taking under its special charge the reserves, 19 in number, which were selected and set apart for conservancy purposes from the large area of waste land remaining at the disposal of Government after the settlement of the cultivated tract had been made, while the unreserved forests are managed on varying systems by the Deputy Commissioners. In some cases annual leases are given of the land; in others the district officer keeps it in his own hands and arranges with the population of the neighbouring villages. Licenses are taken out by householders to obtain produce of certain kinds for the use of their household; by herdsmen to enable them to graze their cattle; individuals are granted special licenses to remove a certain amount and description of forest produce, and an establishment is kept up whose duty it is to prevent the infringement of licenses. The revenue derived from the waste lands amounted to 37,185*l.*, or 18 per cent. more than the year before; and the total income from forests was 65,811*l.* The prices of produce were lower during 1870–71 than they had been for several years, but the price of labour remained much the same. It is observable that the latter does not vary proportionately with the former. Agricultural labourers all over the country are paid in kind, and the conservatism of custom has much to do with the steadiness in the price of other labour.

Cotton.

Forests.

Produce and Labour.

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Mines and Quarries.

The explorations in Chándá have brought to light a slightly broken coalfield, extending from Ghugús to Warorâ, a distance of 22 miles, and probably further. The coal is favourably reported on for summer use, the consumption being about 30 per cent. more than that of English coal, but in the transit falls to pieces and is liable to spontaneous combustion.

On the Godavari coal has been discovered over a small area, but Mr. Blandford is of opinion that no permanent supply can be depended upon from this source. The Nerbudda valley mines are still worked by a company. Coal exists also in the Bilaspur district, but the great distance of the fields from the nearest railway renders their exploration of less immediate importance than that of the others which have been noticed.

Iron ore exists in at least twelve districts of the Central Provinces. Lead is known to exist in Raipúr and Jubbulpore, and good building stone is found in many places.

TRADE.

Imports.

The principal imports into the province from other parts of India are salt, sugar, English piece goods, cattle, cocoa-nuts, and spices. The greater portion of the salt supply is brought in from the western coast by the Great Indian Peninsula Railway. This salt, though inferior in quality, is by its cheapness gradually displacing the lake and rock salts of Central and Northern India. Sugar is nowhere manufactured in the Central Provinces, and the supply comes mainly from Mirzapúr in the North-Western Provinces, the total imports, exclusive of the Bombay consignments, amounting during the year to 479,000 maunds, valued at 409,696*l*. The average local demand for English piece goods amounts to about 120,000*l*. worth annually. The annual trade in cocoa-nuts and spices is represented by the sum of 100,000*l*. in each case.

Exports.

The principal articles of export are cotton, country cloth, grain, oil seeds, silk cocoons, ghi and oil, lac and hides. The good season gave an impulse to the grain trade, as much as 690,000 maunds passing from Raipúr towards Nagpoor and into the eastern coast districts of the Madras Presidency, besides large exports into Berar and the Native States of Central India. There was a great falling off in the exports of raw silk and silk cocoons.

On the whole the year was one of commercial activity, which was promoted by the fair agricultural season and by the opening of the railway line through the Nerbudda valley.

EDUCATION.

The Educational Staff consists of an Inspector-General, assisted by the inspectors of the three educational circles into which the province is divided, and the inspector of schools attached to each district. The village and lower class schools are under the control and management of the Deputy Commissioners, subject only to the inspection and advice of the officers of the Educational Department, who, on the other hand, have the direct management of the higher class schools.

	1869–70.	1870–71.
Schools - -	1,864	1,950
Scholars - -	77,798	83,538
Daily attendance	47,986	53,247

Direction and inspection -	15·
High class schools for boys -	9·7
Middle class „ „ -	23·2
Lower class „ „ -	40·5

The total number of scholars during the year was in the proportion of 1 to 95 of the population, only 1 in 150, however, being the average daily attendance. If these results are far from what could be wished, they at any rate show that much has been done in nine years.

Of the total expenditure on education about 13,000*l*. was raised by the 2 per cent. cess on the land revenue.

Of the progress of female education most discouraging reports are received. "A "few minutes every second or third day is the most regular attendance that can be "insisted upon; marriages take away girls who are just beginning to make progress; "teachers are secured with the very greatest difficulty, and a thousand obstacles "present themselves at every step."

Scientific and Literary.

The Nagpoor Museum was completed during the year, and visited by more than 55,000 persons. Libraries have been formed at several places, and societies of various kinds for the diffusion of knowledge show a hopeful increase. In one case certain landholders who had attended the lectures opened branch societies in their villages. The Nagpoor school of medicine, which is, to a great extent, dependent on local support, has succeeded during the four years of its existence in materially adding to the number of native medical subordinate establishments, which it had been found impossible to recruit elsewhere, and it has attracted to it students from a distance.

Statistics of Life.

The year 1870 saw the introduction of the registration forms issued by the Supreme Government for adoption throughout India, and for the first time the registration of

births and deaths was made to include the whole of the Central Provinces with the exception of a few wild and sparsely inhabited tracts. The only agency available for the work of registering is the police, who depend upon the Kotwárs or village messengers. As there are only 509 circles of registration throughout the province, each containing an average of 52 villages and 126 square miles, and as the Kotwárs, who present themselves periodically at the station-house to which their village belongs, trust to their memory entirely, it may be imagined that the returns are in many cases far from perfect. The number of births registered in the year amounted to 125,705 in a population under registration of nearly 7,000,000, or 18·5 per 1,000. The deaths amounted to 114,423, or 16·3 per 1,000. CENTRAL PROVINCES.

The charitable dispensaries and hospitals numbered 89 in the year under review, and consisted of the two lunatic asylums at Nagpoor and Jubbulpore, 79 charitable dispensaries, and 8 poor-houses. Government appoints a native medical officer to the charitable dispensaries and supplies certain European medicines. All other charges are met by local contributions. Committees of management are formed in the places where the dispensaries exist, and the Civil Surgeon of the district visits them from time to time, inspects the buildings, and satisfies himself of the working of the institution. The number of out-patients relieved by them amounted to 262,767 at a total expenditure of 10,870*l*. Charitable institutions.

The postal lines extend over 539 miles of railway and 8,443 miles of road, the road service being performed by runners. Postal lines.

OUDH.

Oudh is the smallest of the eight regularly constituted divisions of British India, and in size may be compared to Holland and Belgium together. It measures some 270 miles in length and 160 in breadth, and has an area of 23,730 square miles, of which about 13,000 are cultivated. The whole of Oudh is one level alluvial plain, forming part of the valley of the Ganges, which for some distance is its line of separation from the neighbouring territory of the North-Western Provinces. The province is traversed by several important rivers which descend from the Himalayas and eventually unite with the Ganges. To the north of Oudh lies Nipal; on every other side it is enclosed by the territory of the North-Western Provinces. OUDH.

The population, for the most part Hindoos, numbered in 1869 nearly 11¼ millions, or 474 to the square mile, a proportion which is not equalled even in Belgium. There are 1,678 miles of water communication and 4,764 miles of made roads. Forty-two miles of railway are complete and 214 more are under construction.

Oudh became a British province in 1853, and is under the charge of a Chief Commissioner. It comprises four commissionerships, each containing three districts with an average area of 1,999 square miles, a population of 935,019 and 2,062 villages each. The subdivisions, or *tahsils*, are 42 in number, averaging each 557 square miles. The capital and seat of Government is Lucknow, with 285,000 inhabitants. This province has no native states within its jurisdiction.

The greater portion of the land in Oudh, as much as 18,538 square miles, is held on settlements which will expire between the years 1895 and 1900; 464 square miles are settled in perpetuity, and the settlement of 3,577 square miles is in progress. On the 30th September 1870 the total number of estates held direct from Government amounted to 7,792, of which it appears that 62, possessing an average area of 74,000 acres, were held by Talukdars, who paid a revenue of more than 5,000*l*.; 404 estates were held by Talukdars, paying more than 500*l*.; and 5,715 by small Zemindars and proprietary communities. The number of holders or shareholders of 13,550,000 acres held direct from Government was 66,604. The return of the same date giving the varieties of sub-tenures not held direct from Government was incomplete, but of a total number of 30,312 recorded holdings, 30,069, with an average area of 218 acres and an average rental of 3*l*. 6*s*., were held on permanent tenure, and only 243 on farming lease. Land.

The system that prevails in Oudh of uniting in one person judicial, executive, and fiscal functions has the effect of ensuring simplicity and unity of control. It may be said to have worked well, though of late there has been the same complaint as in the Punjab, that the judicial work of the province occupies too large a share of the attention of its officers. There were in 1870, 156 judges, paid and unpaid, or an Judicial.

Oudh.

average of 1 to 71,930 persons and to every 153 square miles; 53 of these were Europeans and 103 were natives.

Criminal Justice.—A more favourable season and cheaper grain produced a diminution in crime. The total number of offences of all kinds reported was 81,172, or 14,444 less than in 1869; 40,670 persons were under trial, of whom 26,600 were convicted. In 1869 the number of appellants against decrees of the lower courts fell from 3,939 to 1,606; in the year under review there was a further decrease, the number being only 1,377.

Civil Justice.—While the judicial agency has only been strengthened since 1860 by the establishment of Small Cause Courts, the number of civil suits instituted has year by year increased. As many as 49,943 cases were disposed of during 1870, against 45,608 in the previous year. The distribution of work varied little, 14 per cent. of the cases having gone before the Small Cause Courts; 42 per cent. before the Tahsildars; 33 per cent. before the Assistant Commissioners, while the Native Honorary Assistant Magistrates disposed of 5 per cent.

Original Suits.	
1860 -	6,944
1869 -	26,867
1870 -	28,925

Appeals.

There was an increase in the number of appeals, but, on the other hand, few remained undisposed of at the close of the year. The value of the suits disposed of was 293,666*l.*, against 238,113*l.* in 1869.

Prisons.

The 13 jails of the province received, during 1870, 16,878 persons, against 18,750 in 1869; and the daily average number was, for the two years, 6,708 and 7,477 respectively. The light nature of crime generally is shown by the fact that no less than 66·8 per cent. of the prisoners were sentenced to periods not exceeding one year. The total expenditure on jails was 34,125*l.*, 26,905*l.* going to maintenance and 7,220*l.* to buildings and repairs. Deducting cash receipts, which amounted to 2,314*l.*, the net cost of each convict was 4*l.* 14*s.* 10*d.* The death-rate (2·46 per cent.) was lower than in any previous year.

Police.

At the close of the year 1869–70 the regular police were reduced from 8,289 officers and men to 6,792, at which figure they stood during the year under review; in other words, if only those are included who were employed on police duties proper, there was one policeman for every five square miles and for 2,338 persons. The municipal and other police paid for from other than Imperial sources numbered 805, and the Chowkeedars, or rural police, were estimated at 32,308. The last-named force is maintained at the expense of the landholders, each man receiving a small grant of land, 3 acres 20 perches in extent, or a cash payment of 3*l.* 12*s.* per annum. The total cost of the three classes of police was less than 200,000*l.*, of which about 95,000*l.* came from Imperial revenues.

Military.

In 1869 the military force in Oudh numbered 8,428 officers and men, and was maintained at a cost of 260,500*l.* In 1870 the numbers were 8,561 and 338,000*l.*

Finance.

It will be seen from the accompanying statement that the year 1870–71 showed an improvement on the preceding year on both the receipt and expenditure sides of the account. The increase in land revenue is due to progress of settlement, and the recovery under the head of excise may be attributed to the removal of the pressure of famine. A higher rate of taxation produced a large increase under assessed taxes.

Income tax.

The income tax affected 8,266 persons, or only ·073 per cent. of the whole population, and the amount realised was 37,051*l.* This small result is due to the bulk of the people being agricultural, and to the paucity of important towns, wealthy bankers, and money-lenders compared with other provinces. The increase in the net stamp revenue was greater than that of any previous year, and the gross receipts of the year were nearly treble those of 1862–3.

Besides the revenue raised from Imperial sources and for Imperial purposes a sum of 154,445*l.* was derived from local funds.

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Revenues and Receipts.	1870-71.	Compared with 1869-70. Increase.	Decrease.
	£	£	£
Land Revenue	1,324,604	15,085	—
Forest	6,018	—	4,664
Excise on Spirits and Drugs	86,275	6,927	—
Assessed Taxes	64,880	37,051	—
Salt	5,451	4,232	—
Stamps	95,600	12,195	—
Law and Justice	14,581	—	300
Police	11,199	—	4,563
Education	1,258	241	—
Interest	1,500	—	444
Miscellaneous	2,653	—	772
Public Works, Miscellaneous	3,004	1,350	—
Irrigation	—	—	16
	£1,617,023	77,081	10,759
		Net Increase, £66,322	

Expenditure.	1870-71.	Compared with 1869-70. Increase.	Decrease.
	£	£	£
Refunds, &c.	8,218	—	818
Land Revenue	128,159	—	3,833
Forest	9,999	—	528
Excise on Spirits and Drugs	5,305	129	—
Assessed Taxes	627	—	264
Salt	9,647	2,835	—
Stamps	3,954	—	308
Allowances, &c. under Treaties	75,785	3,122	—
Total Direct Claims on Revenues	241,694	6,086	5,751
Administration	43,596	—	901
Minor Departments	12	12	—
Law and Justice	83,556	—	4,583
Police	106,894	—	5,692
Education	22,796	—	415
Ecclesiastical	3,786	415	—
Medical Services	13,672	1,648	—
Stationery and Printing	7,303	512	—
Miscellaneous	4,545	—	1,280
Pensions, &c.	6,919	977	—
Allotments for Provincial Services	9,399	9,399	—
Public Works, Ordinary:— Public Works	107,406	—	51,360
Supervision, and Cost of Land for Railways	9,359	—	4,396
Interest on Service Funds, &c.	42	—	733
Public Works, Extraordinary	8,930	—	376
	669,909	19,049	75,487
Surplus	947,114		
	£1,617,023	Net Decrease, £56,438	

Forests.

The whole area of State forests in Oudh, including the 6,150 acres added during 1869-70, is about 735 square miles. Although, owing to small falls of timber, the actual receipts were less than they were the year before, and considerably less than the expenditure of the year under review, the assets of the Department enabled it to show a net surplus of 5,337*l.*

Agriculture.

Under skilful cultivation, and with the aid of capital, agriculture in Oudh is capable of great development. The principal staples are wheat and other food grains, but with care sugar-cane will thrive nearly everywhere; indigo would reward European enterprise; for opium there is indefinite room, and tobacco, which is often luxuriant, would improve with the introduction of better seed and a more skilful mode of preparation.

	Year ending Sept. 1870.
Rice	1,517,529
Wheat	1,734,416
Other food grains	3,974,344

Though the figures in the margin are approximate only they may be accepted as indicating an improvement in the number of cattle. Some improvement also took place in the average produce of the land and in the price of produce. The yield of wheat per acre is estimated to range from 6 bushels on the poor unirrigated portions to 27 bushels on those best irrigated. Wheat, rice, and grain fell gradually from famine prices to unusual cheapness. The ordinary wages of skilled labour may be put at 6*d.*, and of unskilled labour at 3*d.* a day. The province possesses no mines or quarries.

	Year ending Sept. 1870.
Cows and buffaloes	3,209,939
Sheep and goats	825,441
Ploughs	1,009,430

	Lbs. per Rupee.
March, 1870	30
Sept., 1870	39
March, 1871	52

Manufactures.

Oudh depends mainly upon England for its piece goods, &c., and consequently the imports considerably exceed the exports in value. In regard to cloth it appears that the wants of the province are supplied by local manufacture. The great export trade of Oudh is derived from its agricultural produce, grain, oil seeds, timber, and sugar.

Imports	£1,648,856
Exports	1,423,405
Excess of Imports	£225,451

Charitable institutions.

The general state of the 24 dispensaries of the province is most favourably reported on. The total number relieved by them during the year was 121,125. There are besides 9 other institutions of various kinds which afforded relief to 138,166 persons.

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Education.

Speaking of the educational results of the year, the Report states that decided and on the whole satisfactory progress was made. Statistics are for the first time given of indigenous schools which have recently been taken under Government supervision, and number 507, with an average daily attendance of 2,699 scholars. Excluding these, however, the number of schools, Government and private institutions aided and unaided, increased from 717 to 791, and the average attendance from 26,603 to 27,773. The proportion of scholars to the native population was 1 in 368 in 1870–71, against 1 in 421 in the previous year. The total expenditure, which amounted to 42,621*l.*, was rather less than in 1869–70; one-half of this sum was derived from Imperial funds, one-fourth from the educational cess, and the remainder from municipal and other sources.

Government Institutions	710
Private "	81
Indigenous Schools -	507
	1,298

In Oudh, as elsewhere, the education of girls is beset with difficulties. "Here," says the Director of Public Instruction, "not only do schoolmistresses object to having "their pupils seen or to be seen themselves, but many of them object to male "inspection, even from behind a purdah. Some say, that not only must not a man "be seen, but even his voice must not be heard."

Scientific and Literary.

The native reform clubs of Lucknow, Seetapoor, and Gondah flourish. Lucknow possesses besides the Government press 20 others, 17 of which print in the vernacular. The number of visitors to the museum increased very largely, being, on the average, nearly 130 per day. This institution is stated to be a great source of amusement to the people, and very useful from an educational point of view. For though museums may not impart much knowledge they excite the curiosity of the people, and thus help to overcome one of the greatest obstacles to their mental improvement—the want of any wish for further information.

Municipalities.

The Municipal Act of 1867 was in force in 14 towns, two new ones having been added during the year. Their aggregate income amounted to 42,370*l.* As the municipalities derive the greater part of their income from the octroi duty, the resolution of the Government of India of November 1868, forbidding the levy of the duty on articles which had already paid customs' duty, was severely felt in all of them, but especially in Lucknow. The resolution was modified in the beginning of 1871, but the relief did not come soon enough to get the municipalities out of their difficulties during the year under review.

Court of Wards and encumbered estates.

Government had under its management, in September 1869, 45 estates, or eight more than the year before. Of these, 37 were held in trust for minors, and 8 were encumbered estates. To relieve the district officers, who are already overtasked with their other duties, a special system for the management of these estates is being organised.

Wild animals.

	No. destroyed.	At cost of £
1869–70 - -	10,699 - -	672
1870–71 - -	3,651 - -	390

The decrease in the number of wild animals destroyed was caused by the withdrawal of the small reward previously given for every snake brought to the district officer; 5,625 snakes were destroyed in 1869–70, only 167 in the year under review.

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The territories under the Government of the Punjab and its dependencies, including all British India north of the Province of Sind, Rajpootana, and the North-Western Provinces, which lies between the River Jumna on the east, and the Sulemani hills on the west, have an extreme length of 800 miles, and an extreme width of about 650 miles. The total area comprised within these limits is over 200,000 square miles in extent, more than half of which is the territory of feudatories. The British portion of the province, which is about as large as the Kingdom of Italy, is returned at 102,001 square miles, of which 31,513 square miles, or less than one-third, are cultivated; 25,333 square miles are culturable, and the remainder is unculturable waste. There are 2,902 miles of water communication, and 19,852 miles of roads, metalled and unmetalled. The length of railway communication open at the end of the year was 412 miles.

The Punjab was annexed in 1848, and became a Lieut.-Governorship in 1859. For administrative purposes it is divided into 10 divisions, with an average area of 10,200 square miles, 32 districts averaging 3,188 square miles, or 132 tahsils, or revenue and judicial subdivisions averaging 772 square miles. There are 451 magistrates of all grades, most of them exercising civil and revenue powers, and 14,487 police to a population of upwards of 17½ millions. There are 34,462 villages, at an average distance of 14 miles from the nearest law court.

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	Population.
Delhi - - -	154,417
Amritsar - - -	135,813
Lahore - - -	98,924
Peshâwur - - -	58,555
Multân - - -	56,826

The population of the principal towns is given in the margin. The total population in January 1868 was 17,596,752, giving an average of 173 per square mile.

The season was a far more favourable one than that of 1869–70; the rainfall, though moderate, was seasonable, the harvests were plentiful, there was a marked fall in the price of food, and the province was not visited by any severe epidemic disease. This prosperity was accompanied by a considerable diminution of serious crime, and a large increase in civil litigation.

The untimely death of Sir Henry Durand threw a gloom over the commencement of the year 1871. He succeeded to the Lieut.-Governorship on the retirement of Sir Donald Macleod in June 1870. While on a tour of inspection on the Dera Ismael frontier he was thrown from the elephant which he was riding in passing under a gateway on the 31st December 1870, and to the profound regret of all who were acquainted with his great services to India, the accident terminated fatally on the following day.

Native States.

The Native States with which the Government of the Punjab has political relations are of two classes: 1st, *Dependent and Feudatory States;* 2nd, *Independent States,* including frontier tribes. The Feudatory States are 34 in number, and have an approximate area of 104,000 square miles. Their population amounts to about 5¼ millions; their revenues amount to about 1,800,000*l.* per annum; their military forces (exclusive of mere armed retainers) to about 50,000 men, and they pay a total tribute of 28,000*l.* per annum. The chiefs are guaranteed full and unreserved possession of their territory, and in return are bound to execute justice and promote the welfare of their subjects; to prevent suttee, slavery, and female infanticide; to co-operate with the British Government against an enemy; to furnish supplies to troops, and to grant, free of expense, land required for railroads and Imperial lines of road. The chiefs of Kashmir, Pattiala, Bháwalpore, Jhind, and Nabha have full power of life and death over their subjects, and are exempt from inquiry into complaints made by the latter, privileges that are not extended to the remainder. The chiefs of Bháwalpúr, Malér Kotla, Dajanu, Laharu, and Pataodi are Mahomedans; those of Pattiála, Jhind, Nábha, Kapúrthalla, Faridkot, and Kalsia are Sikhs; the rest are Hindus. Of the three States at present under the management of British officers, Bháwalpúr was taken over by the British Government in 1866 on the repeated requisition of the leading men, owing to the anarchy that followed the death of the late chief, and the minority of his successor. The management of Chamba was vested in a British officer at the chief's own request, and that of Pataodi was assumed by the Government in consequence of the minority of the chief and the oppressive rule of the Regent, his uncle.

The financial result of the management was satisfactory during the year, but there is nothing else requiring special notice.

Kashmir.

Kashmir has an area of 25,000 square miles, and a population estimated at a million and a half. The gross revenue is supposed to be about 790,000*l.*, and the military force is set down at 26,667 men. The appointment of Joint Commissioners in Ladakh, noticed in last year's report, whose duties are to supervise trade matters, conduct judicial inquiries, and arrange for the convenience of merchants, seems to have been attended with success. The year 1870 was unfavourable to trade, owing to disturbances in Yarkand, and the expeditions undertaken by the ruler of that country, which delayed and in many cases prevented the departure of merchants and caravans, the means of transport being taken up for the use of the troops. The season, too, was unusually severe, and heavy falls of snow closed the passes much before their usual time, and made the journey from Turkistan to India one of great difficulty and even danger. Notwithstanding these exceptional circumstances, the value of the Ladakh through trade, exports and imports, rose from 129,200*l.* to 154,800*l.* The steady annual increase affords good hope for the future.

Pattiála, &c.

The political control of Pattiála, Jhind, and Nábha was transferred during the year from the Commissioner of Ambála to the direct management of the Lieut.-Governor. With respect to the proposed Pattiála branches of the Sirhind Canal, which is now under construction, it has been agreed that the three States shall hold joint proprietorship in the main channels of the branches, the management of which, however, is to remain in the hands of the British Government, and that each State is to have, in addition, its own distributary water-cuts, of which it is to pay the entire cost, and retain the exclusive management. At the request of the Maharaja the Government of India gave its consent to the construction of a line of telegraph from Pattiála to Ambála, subject to certain

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conditions, to which the Maharaja agreed. In October 1870 this chief presided at the opening of the Sutlej railway bridge, and in January 1871 he visited Calcutta, and was installed a Grand Commander of the Star of India.

Cabul.

The state of affairs in Cabul during the year was such as to occasion considerable anxiety. Mahomed Yakub Khan, a son of the Amir, suspecting that his father intended not to make him his heir, fled with a following to Candahar, which he proceeded to invest. The place, however, held out, and, on the approach of the army sent after him by the Amir, Yakub Khan raised the siege and marched westward. Again overtaken, he refused to dismiss his troops, and fled with 200 horse to the Seistan border, where to the close of the year 1871 his raids and intrigues were a cause of disquiet. The relations of the Amir with the British Government were cordial throughout the year, and he was on friendly terms with the Khan of Bokhara. The strong complaints of the Amir as to the Persian authorities taking advantage of the disturbed state of his country to seize Seistan, and permitting constant aggressions beyond the border, led to the appointment of a Joint Commission, under the presidency of Sir Francis Goldsmid, for the settlement of the long disputed Seistan boundary question. The Commission proceeded to the country, and had not terminated their labours at the conclusion of the year under review.

The question of our connection with the frontier tribes was fully discussed in last year's report, and it will be remembered that, far from that connection being productive of disquiet, as is the common belief among the ill-informed, the result of twenty years honest effort has been the pacification of very many lawless tribes, and the gradual reduction to order of a turbulent country.

Agror.

Since the restoration of the Khan of Agror to his hereditary rights, on the discovery by the British Government of the justice of his claims, the valley has been quiet, and the military force which it was at first considered necessary to retain in the country was withdrawn in the autumn of 1870. The Akazais, who were opposed to the restoration of the Khan, showed no signs of becoming tractable, but the tribe is small and unimportant, and since their expulsion from their villages they have been comparatively harmless.

Peshawur.

The tribes of the Khaibar Pass, dissatisfied with the allowances given to them for keeping open the pass by the Governor of Jalalabad, plundered caravans and

Yusufsai.

made themselves generally troublesome. Disturbances also took place in the Yusufsai Valley, which arose from dissatisfaction with the settlement operations. The assessment made at the summary settlement was a merely nominal one, and large tracts of new land had been since taken up, of which they desired to avoid the re-measurement. Three villages were accordingly evacuated by their inhabitants, who refused to return or obey the order of the authorities unless the settlement was abandoned or postponed, but on being told that persistence in their conduct would only cost them their lands and houses, and would not postpone the settlement, they made their submission, and there was no further cause for complaint.

Certain rules, framed with the view of strengthening the hands of frontier officers, and legalising the action which they were often obliged to take for the maintenance of

Kohát.

peace on the border, received the sanction of the Government of India. The only serious offence which occurred in the Kohat district was the murder of three native British subjects by Afridis. The punishment which was inflicted on the criminals, entailing the destruction of their houses, their expulsion from the pass for one year, and the payment of a fine of 300*l.*, and the promptitude with which it followed the offence, had a most excellent effect in ensuring the subsequent safety of the pass for British subjects.

Bannu.

An unprovoked attack on the part of the Muhammad Khel Waziris, a small tribe numbering some 250 fighting men only, on a detachment of Sepoys in June 1870, was followed by the flight of the offenders into independent territory where they could not be punished. Wearied at length with being hunted from place to place, and great pressure being put upon other tribes to expel them, the whole tribe came in a body to the Commissioner of the Derajat Division and surrendered. The effect of this event, the first of its kind on record, was very great throughout the border. The tribe was permitted to re-occupy the land in British territory which they had abandoned on the payment of a heavy fine and the imprisonment of the head man.

Dera Ismail Khan.

The inability of the Nawab to carry out efficiently the duties entrusted to him, obliged the British Government to make better police arrangements for the pacification of the Tank border. This object will be assisted by the settlement of the Dera Ismail Khan district which has been agreed upon.

Dera Ghazi Khan.

The Dera Ghazi Khan frontier was perfectly tranquil during the year. There was a conference in February 1871 between the Lieutenant-Governor of the Punjab and

Sir William Merewether, the Commissioner of Sind, to determine certain questions affecting the relations of the Governor with the Marri and Bugti tribes in Dera Ghazi Khan. PUNJAB.

Steps have been taken towards the re-organization of the Frontier Militia on the principle on which the force was originally embodied, viz., that it should be composed of men having an intimate knowledge of the country and who would be under the direct influence of the Chief, whose tribes were responsible for the safety of the passes leading to British territory. The system of pass responsibility appeared to be working well. In this matter firmness and tact is required on the part of the district officers, who have on the one hand to avoid making pass responsibility too heavy a burden, and on the other to prevent tribes allowing with impunity the passage of marauders into British territory through their lands. Frontier militia.

With regard to land revenue there is little to add to the information contained in the report of last year. The demand rose from 1,864,375*l.* to 1,871,390*l.*, an increase of 7,014*l.* The small outstanding balance denotes a return of agricultural prosperity. Re-settlements were in progress in several districts. Of the settlements which remain to be taken up the last will expire in 1893. Land revenue.

The police force consisting of the cis-Indus and the trans-Indus police was reduced from 20,069 to 19,440, of whom 49 only were Europeans; there was thus one policeman to 1,156 persons, and to an area of seven square miles. The marked superiority of the cis-Indus over the trans-Indus police, as shown in the proportion of convictions obtained to offences reported, led to the introduction during the year under review of the cis-Indus system into the Peshawur division. Police.

There were at the close of 1870, 518 tribunals of various kinds for the disposal of criminal, civil, or revenue cases, or 22 less than at the close of 1869. This number is in the proportion of one tribunal to every 33,970 persons. The Settlement Courts are not included, nor is that of the Financial Commissioner who exercises final appellate jurisdiction as regards suits tried in the Settlement Courts. Thirteen honorary, or, as they are called, "Jagirdar" magistrates, were created during the year, raising the number to 35. Judicial.

Criminal Justice. 55,339 criminal cases were brought to trial in the magisterial courts, or 1,158 more than in 1869. With this increase, however, in the total the number of serious cases diminished by 9 per cent. The proportion of work done by unpaid judges was 11 per cent.; 66 per cent. of the cases were disposed of by Native and 34 per cent. by European agency. The average duration of trials was 7 days, or one day less than in 1869.

Civil Justice. The number of civil suits instituted in the Courts of the Punjab in 1870 was 205,606, being an increase of 41,011, or no less than 24·9 per cent. over the number of suits instituted in 1869, and bearing the large proportion of one suit to every 86 persons. The bulk of the cases were, as usual, of very small monetary value, only 1,736 of the whole of them involving sums of more than 50*l.* The per-centage of cases disposed of by native judges was nearly 5 per cent. higher than in 1869, and 8 per cent. higher than in 1868.

The number of documents registered in 1870-71 was 92,712, or 20 per cent. less than in 1869-70, the decrease being attributable, as in the other provinces, to the improvement in agricultural prospects which took place during the year under report, and the smaller necessity there therefore was for landholders to mortgage or part with their land. Registration.

The number of gaols was 30, as in 1869. The total prison population rose from 40,880 to 41,250, and the daily average from 12,668 to 13,060, though it is stated that a portion of this increase is nominal. The mortality was somewhat higher, 3·66 instead of 3·37 per cent., but there was a smaller amount of sickness. With regard to education, about 33 per cent. out of the daily average number of prisoners were under instruction; 93·9 per cent. of those admitted were altogether devoid of education. Gaols.

The ticket-of-leave system in force in the Lahore Central Gaol continues to work satisfactorily. In several gaols the good conduct mark system is favourably reported on, and rules were issued during the year under which it will be possible for all prisoners whose sentences exceed two years, life prisoners excepted, to obtain by good conduct a remission of sentence not exceeding one-twelfth of their full term.

The number of troops of the regular army maintained in the Punjab (32,556) was slightly less than in 1869-70, and the number of field guns was reduced from 123 to 110. The Punjab Frontier Force, which is distinct from the regular army, stood at 12,227 men of all rank, and cost 368,369*l.* For the suppression of raids and petty Military.

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outrages by the border tribes there are 60 outposts, garrisoned partly by regular troops and partly by militia. The latter force was organised by Sir Neville Chamberlain in 1861.

Public works.

Numerous important works were carried on with energy during the year under review. The final sanction of the Secretary of State having been given on 30th September to the construction of the Sirhind Canal, a good beginning was made with the work. Labour being scarce 500 convicts were employed with success, and it was decided to increase the number to 3,000. Plans are under consideration for the irrigation of a large tract of high land in Yusufzai, which now lies almost uncultivated for want of water. The inducements which the success of such a scheme would offer to the wild tribes to settle down peaceably to agricultural pursuits are of great political importance. Extensive surveys have for some time been carried with a view to the future expansion of existing irrigation right and left of the river Indus.

Forests.

The forests are divided for administrative purposes into ten divisions, and these again into sub-divisions. The divisions, so far as they relate to the hill forests, follow the valleys of the great rivers. The object of the Conservator of Forests during the year was to spare the *deodar*, and bring into the market pine timber, which has not been hitherto so extensively made use of as the former.

RAILWAYS.

Sind, Punjab, and Delhi railway.

State railways.

During the year the four separate undertakings of the Sind Railway Company, viz., the Sind Railway, the Indus Steam Flotilla, the Punjab Railway, and the Delhi Railway, became one company, entitled the Sind, Punjab, and Delhi Railway. The amalgamation will lead to considerable economy in management and to greater simplicity in working the traffic along the Indus Valley Route. The commencement of the Punjab Northern State Railway was at first retarded by the alteration of the gauge from a width of 5′ 6″ to one of 3′ 3″, but the work made good progress during the year under review. The survey operations connected with the Indus Valley Line between Multán and Rohri, a length of 183 miles, were completed, and estimates submitted to the Supreme Government by the end of September 1870. The estimates for the upper or Multán division were accepted, but those for the Rohri division were undergoing revision.

Agricultural.

The principal crops of the spring harvest are wheat, barley, pulses, oil-seeds, and tobacco; those of the autumn crop are millet, rice, cotton, Indian corn, and sugar-cane. It will be seen that though there was a falling off in the spring crop this was more than met by the subsequent autumn cultivation. The average prices of all the principal food staples fell during the year under review.

	1869–70. Acres.	1870–71. Acres.
Spring crop -	9,422,361	9,137,027
Autumn crop -	8,862,491	9,239,509
	18,284,852	18,376,536

Salt.

The principal metallic products of the province and their locality were mentioned in last year's report. Rock salt is found in the Salt Range, in the Kohát district, and in Mandi territory. The total out-turn in the first and most important district during 1870–71 was 115,394 maunds, valued at 346,182*l.*, the out-turn of the previous year having been 149,738 maunds, valued at 449,715*l.* To prevent smuggling a few only of the mines are worked, the remainder being closed.

Manufactures.

The value of the manufactures of the year was estimated at 5,165,900*l.*, or 1,323,000*l.* in excess of the estimate of 1869–70. The Franco-German war caused a falling off in the shawl trade, and considerable distress among the weavers of Amrítsar.

Trade.

The statistics of the external trade of the province is shown in the margin. Since 1868–69 there has been a steady decrease in the quantity of grains other than rice and oil-seeds imported, while the imports of salt and rice have largely increased. There was a large increase in the export of salt, which goes chiefly to the North-west Provinces. The statistics of internal trade show Multán, Amritsar, and Delhi to be the principal commercial centres of the province; Multán heading the list with a total, imports and exports, of 2,210,000*l.*, Amritsar and Delhi coming next with 1,060,527*l.* and 1,649,840*l.* respectively. The boat trade of the Indus is registered at Sakkur, in Sind, and was valued at 169,000*l.* during the year 1870–71. Under the terms of the commercial treaty concluded with the Maharaja of Kashmir in May 1870, Dr. Cayley, on the part of the British Government, and Pandit Bakshi Ram, on the part of Kashmir, were appointed Joint Commissioners in Ladakh to supervise trade matters and arrange for the convenience

	Imports. £	Exports. £	Total. £
1869–70 -	3,138,757	2,348,825	5,487,582
1870–71 -	2,627,670	2,141,280	4,768,950

of merchants travelling between Central Asia and India. Dr. Cayley in his interesting report speaks very hopefully of the trade of Ladakh, which has already been adverted to. "The returns of the last four years show a continuous and very considerable "increase in the trade through Ladakh, which has almost trebled in that time. This "is due to the reduction of duties and the arrangements made for checking the "oppression and unauthorised exactions formerly so much complained of, and there "is every reason to believe the trade will go on increasing year by year, though its "magnitude must necessarily be limited by the expense and difficulties of transport," and the political state of Yarkand. PUNJAB.

The variations in the various items of receipt and expenditure need but a few words of explanation. A portion of the large increase in forests receipts is a matter of account, the remainder is due to the large requirements of the State railways. The higher rate of income tax does not altogether account for the increase of over 100,000*l.* under that head, which was no doubt partly due to greater care in the assesement of the tax. The falling off under salt was due to the exceptional demand of 1869–70 from the Central Provinces not recurring, and to increased importations of Kokan salt. The greater part of the apparent increase under stamps is a matter of account. Turning to the expenditure side it will be seen that an increase of about 318,000*l.* under the head of Extraordinary Public Works far more than counterbalances the smaller expenditure on ordinary public works, and accounts for the smaller provincial surplus. The large saving under Political Charges was due to exceptional items of 1869–70 in connection with the Amir of Cabul. Finance.

The receipts from the principal heads of Local Receipt amounted to 293,822*l.* in 1870–71, against 299,255*l.* in 1869–70. Local funds.

Revenues and Receipts.	1870–71.	Compared with 1869–70.		Expenditure.	1870–71.	Compared with 1869–70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land	1,969,292	—	438	Refunds and Drawbacks	14,194	—	16,631
Tributes, &c.	27,468	—	1,145	Land	212,850	4,601	—
Forest	94,724	55,311	—	Forest	118,997	47,631	—
Excise on Spirits and Drugs	83,323	1,911	—	Excise on Spirits and Drugs	6,490	—	461
Assessed Taxes	168,957	103,909	—	Assessed Taxes	676	203	—
Customs	82,343	12,199	—	Salt	67,501	—	4,063
Salt	837,331	—	85,729	Stamps	9,147	—	176
Opium	—	—	1,375	Allowances under Treaties, &c.	93,818	—	1,516
Stamps	233,347	24,727	—	Total Direct Claims on Revenues	523,673	52,435	22,847
Law and Justice	59,861	—	25,755	Administration	111,004	—	8,403
Police	48,291	8,011	—	Minor Departments	790	790	—
Marine	1,476	—	91	Law and Justice	253,113	8,994	—
Education	903	—	4,077	Police	298,408	—	6,451
Interest	981	468	—	Marine	23,236	—	4,374
Miscellaneous	6,304	—	47,364	Education	55,635	—	6,196
Public Works :—				Ecclesiastical	21,782	—	1,655
Miscellaneous	6,844	—	9,458	Medical Services	48,122	7,390	—
Irrigation	222,171	23,785	—	Stationery and Printing	11,996	—	1,116
Railways (Gain by Exchange)	9,039	5,550	—	Political Agencies	14,715	—	82,022
				Miscellaneous	16,031	—	11,110
				Pensions, &c.	34,258	14,877	—
				Allotment for Provincial Services	23,521	23,521	—
				Public Works, Ordinary :—			
				Public Works	492,090	—	117,449
				Supervision and Cost of Land for Railways	6,286	24	—
				Loss by Exchange	21,189	—	13,662
				State Railways	1,425	1,425	—
				Interest	637	333	—
				Public Works, Extraordinary	500,273	327,446	—
				£	2,458,184	437,235	275,285
Total £	3,852,650	235,871	175,432	Surplus	1,394,466	Net Increase £161,950	
		Net Increase £60,439		£	3,852,650		

Though many Yarkand traders were prevented, in the year under review, from reaching the Pálampúr fair, in the Kangra Valley, by the severity of the weather, Fairs.

PUNJAB.

Pálampúr.

there was an improvement over the previous year in the value of both the imports and the sales effected; and the fair, which was established primarily with a view to the development of trade with Central Asia, and for the benefit specially of traders from Yarkand and the countries of Eastern Turkistán, seems to have acquired considerable local importance, independent of the Yarkand trade.

Value of	1869–70.	1870–71.
	£	£
Imports -	31,400	35,005
Sales -	20,500	26,266

Peshawur.

The Peshawur fair, which was established in 1870 to meet the convenience of merchants from Afghánistán, Bokhára, and Western Turkistan, and of the countries to the north of the Peshawur Valley, was opened on the 10th November and closed on the 20th December 1871. The sales exceeded 30,000*l.* in value. With regard to the nationality of the traders, some 13 well-to-do men came from Cabul, who deal with Turkistan and Peshawur; among the rest were men of 14 tribes of Afghánistán, both trading on their own account and carriers; about 10 horse merchants brought horses through the passes; the agents of 6 large Amritsar houses were present, as well as some Bhojpur horse dealers; and an Armenian house sent up from Calcutta over 10,000*l.* worth of tea.

EDUCATION.

The writer of the administration report is satisfied that education made decided progress during the year. His conclusion seems to have been drawn from the progress made in the colleges and higher class schools, but is hardly warranted when the falling off in the total number of schools and in the aggregate of the average daily attendance is taken into consideration. This falling off was due mainly to the extension of the policy adopted in 1869–70, of gradually reducing the *number* of Government institutions, with a view to providing an adequate staff of suitably paid teachers for the remainder. In last year's report it was stated that the average daily attendance at all the institutions of the province was 73,768, but to this should have been added the attendance at indigenous schools, which would have raised the total to 126,237. The number of institutions for the three years and the attendance would then be as shown in the margin.

	1869–70.	1870–71.	Average daily Attendance, 1870–71.
Government Institutions -	1,427	1,360	47,376
Grant in aid Institutions -	710	562	20,075
Unaided Indigenous Schools	3,995	4,133	50,551
	6,132	6,055	118,002

	1868–69.	1869–70.	1870–71.
Institutions - - -	7,761	6,132	6,055
Daily attendance - - -	141,665	126,237	118,002

The results of the examinations connected with the college and higher schools was most satisfactory. In the normal schools four-fifths of the certificates granted during the year were of the higher grade, as compared with one-half in 1869–70. Female normal schools have been established in several towns, and the hope is confidently expressed that in a few years girls schools may be made as efficient as those for boys. The great popularity of the Lahore Medical School is shown by the rapidly increasing number of competitors who offer themselves at the annual competitive examinations for admission to the junior class, to be trained as hospital assistants and native doctors. It should be mentioned that these men have to pay their own travelling expenses from their homes to Lahore, to maintain themselves there until admitted or rejected, and in the event of rejection, to bear the expenses of the return journey.

	1869–70.	1870–71.
Vacancies	25	20
Candidates	109	190

Scientific and Literary.

The central museum was visited in 1870 by 59,912 persons, or 32,522 more than in 1869. The Government book depôt, which is under the control of the Director of Public Instruction, supplies a large number of educational works for distribution and use in the schools throughout the province, and is to a certain extent self supporting. During the year, 89,912 vernacular books were printed at the educational press. At the close of 1870 there were 60 printing establishments, exclusive of Government presses, and three English and ten vernacular newspapers, and in addition a vernacular newspaper is published at Jammu, the capital of Kashmir, another at Bháwalpúr, and a third at Pattiála.

Sanitary.

There was no epidemic or wide-spread disease of any kind during the year. The carefully prepared byelaws, recently introduced, for enforcing the registration of births and deaths in the principal towns were extended to 77 municipalities. Projects

were prepared or in progress for improving and increasing the water supply of Delhi, Peshawur, and other towns, and improving the drainage. PUNJAB.

The figures in the margin show the rapid increase that has taken place during the five years ending with the one under review in the number of dispensaries, and of persons relieved at them. In addition to these, there are four dispensaries in the Bhâwalpur state, one at Leh in Ladakh under the charge of Dr. Cayley, and one each in Kashmir, Mandi, and Chamba.

	1866.	1870.
Dispensaries	69	101
Patients -	369,909	623,447

The Lahore and Delhi lunatic asylums are maintained entirely at the state expense, and it is in contemplation to establish others. Lunatic asylums.

The public vaccine establishment, since its organization in 1864, had, to the end of the year, visited an area of 28,785 square miles. The number of operations for the year was over 220,000. Vaccination.

The total length of telegraph line was 990 miles, or 182 miles more than at the close of 1869–70, and there were telegraph offices at 17 towns. Telegraph.

The municipal committees constituted under the Act of 1867 were 127 in number, or 9 more than in 1869, and in 192 places to which that Act had not been extended, municipal income continued to be raised in accordance with long-standing custom or under Government orders. By resorting to other taxes the municipalities recovered somewhat from the loss they suffered in 1869–70, when the Government of India issued an order restricting the levy of octroi. The new taxes were, however, unpopular, and in 1871 the Government of India to a certain extent relaxed the obnoxious order. Municipal.

	£
1868–69 - - -	160,880
1869–70 - - -	143,176
1870–71 - - -	152,951

BRITISH BURMAH.

British Burmah possesses four natural divisions: (1) the narrow strip of country between the Bay of Bengal and the Aracan Yoma range, which terminates at Cape Negrais; (2) the valley of the Irrawaddy; (3) the valley of the Sittoung; (4) the valley of the Salween. The three administrative divisions, Aracan, Pegu, and Tenasserim were united and placed under a Commissioner in 1862. BRITISH BURMAH.

The district of Toungoo having been transferred from Tenasserim in 1870, and that of Prome having been subdivided, the area of the several divisions of British Burmah given in the report of last year requires revision. It has, moreover, been found that the extent of Aracan was over-stated, the hill tracts having been included in the district of Akyab as well as reckoned separately. The accompanying figures may be accepted as approximately correct. Area.

Divisions.	Districts.	Area in Square Miles.	Population 1870–71.	Gross Revenue 1870–71.
				£
Aracan -	3	18,530	452,925	213,220
Pegu - -	5	28,404	1,467,894	727,908
Tenasserim -	5	46,730	570,917	203,970
Total -	13	93,664	2,491,736	1,145,098

The population, therefore, is found to be at the rate of about 26½ to the square mile. The cultivated area has increased during 1870–71 by 178 square miles, but it is still only 3½ per cent. of the total area of the province, and little more than 9 per cent. of that which is capable of cultivation, estimated at 35,588 square miles. In Pegu alone there are no less than 13,315 square miles of waste land, which only require population to be made as fertile as perhaps any part of the world. The communications throughout the province are mainly made by water, and there are but 709 miles of road altogether, of which 504 are of the first class. Communications.

The friendly relations between the British Government and the Court of Mandalay were maintained throughout the year, the King of Ava displaying confidence in the political agent, and showing a desire to co-operate in all measures calculated to preserve the good understanding existing between the two governments. He paid much attention to the English system of telegraphs, and constructed a line from Mandalay nearly to the British frontier. In his desire, however, to introduce some of the elements of western civilisation into his country, the King extended his patronage largely to European merchants, and was unfortunately induced to engage himself in trade, with unsatisfactory results. The only event occurring to disturb the public peace was a conspiracy formed by the Kotha Prince to seat himself on his father's throne; the plot was, however, disclosed before it could be carried into execution, and the prince was seized with 40 of his followers, though their lives were spared at the intercession of a Buddhist monk. Political.

A commercial treaty was concluded in 1871 between the Italian Government and the Court of Ava.

BRITISH BURMAH.

Mail contract.

A contract for three years has been completed with the Irrawaddy Steam Flotilla Company, under which a mail steamer is despatched once a week to Mandalay, and once a month to Bhamo, a measure which has tended to increase the trade at the different stations on the Irrawaddy. It is hoped that the facility of communication will gradually attract the surplus population of the Shan states to settle as agriculturists on the waste lands in British Burmah.

Judicial courts at Mandalay.

The political agent's court at Mandalay gave satisfaction during the year, but the working of the mixed court for the adjudication of suits between British and Burmese subjects was less successful, owing to the appointment by the King of a new judge unused to the dispensation of justice.

Agent at Bhamo.

The establishment of an assistant political agent at Bhamo was mentioned in last year's Report. The immediate object of this measure was to re-open the trade route to Talifoo in Yunan, which had been closed for 16 or 18 years in consequence of the successful rebellion of the Panthay Mussulmans against the Chinese, the chief barrier to the trade being now caused by two bands of Chinese marauders who carry on war against the Panthays on a considerable scale, and stop all traffic between China and Burmah. On his arrival at Bhamo, Captain Strover soon succeeded by friendly intercourse in removing the natural fear of the local officers that he might have other designs than that of opening the road for trade, and the king even removed the Governor, who had been particularly obstructive. The Court of Mandalay, however, being always desirous of keeping on good terms with the Chinese, persists in regarding the Panthays as rebels, and Captain Strover is obliged to be careful lest he should in any way appear to be favoring one of the hostile parties against the other.

The existing trade of Bhamo is in a great measure conducted through the medium of the royal brokers; early in 1870 the Governor issued an order, on which the Chinese and other regular traders acted, that people might sell their goods to whom they pleased, but the Kakhyens, or people of the hills, find it convenient to continue their dealings with the brokers, who understand their language and requirements. The blood-feuds existing between the hill tribes are very detrimental to the re-establishment of trade, and during a tour which the agent made in the hills in company with one of the King's ministers and four of the Khakhyen chiefs, he endeavoured with considerable success to reconcile some of these quarrels, in such a manner as might form a precedent for similar accommodations in future. The first case took its origin from the meeting in 1868, when 30 of the chiefs entered into an obligation with Major Sladen to protect all traders and travellers in their hill ranges, on the return from which conference one of these men was missing, and his death was in some manner laid at the door of the British Government. Captain Strover was warned that the tribe intended to revenge the man's death, but he managed to open negotiations with one of the chiefs, who proved to be the brother of the missing man, and who consented to visit Bhamo in order to adjust the matter. On his doing so, he began with a demand for 12,000 rupees, 10 buffaloes, 10 bullocks, 10 gongs, 10 slaves, 10 pieces of broadcloth, 10 turbans, 10 muskets, and several other articles; Captain Strover, on the other hand, offered him 50 rupees, and bade him to re-consider the matter, and after numerous conferences, the Kakhyens at length extinguished the debt, and made solemn promises of protection to all travellers, whether Burmese or British, on receiving 200 rupees, a gun, and a Burmese dress. In the second case the quarrel had been protracted for 20 years, and repeated reprisals had taken place, but the matter was finally compromised for the sum of 25 rupees, the payment of which Captain Strover guaranteed.

During the cold weather a European agent resided at Bhamo, as representative of the commercial community of Rangoon, and acquired useful information respecting the nature of the goods likely to be demanded in that quarter. The trade with Upper Burmah and the Shan States in 1870–71 showed an improvement over the preceding year of upwards of 42,500*l.* in exports, and nearly 110,000*l.* in imports.

Revenue.

In the whole province of British Burmah, 34·773 miles have been surveyed topographically, but only 3·887 trigonometrically. At the close of 1870–71 the area under settlement was 1,369 square miles, showing a decrease of 28 miles in consequence of leases falling in which have not been renewed. The extent of land on which revenue was payable under tillage increased from 1,987,483 to 2,093,913 acres, a result which is due to the great demand for rice for export, both by sea and to Upper Burmah. In the Prome and Thayet districts, where drought prevailed in the previous year, a considerable quantity of land was brought under irrigation by private persons, and some applications were received for advances to enable them to dam up small streams for a similar purpose. Of the total cultivated area, 1,760,018 acres were occupied by rice, 120,274 were used as garden and orchard, 80,925 were under

miscellaneous crops, 126,248 were hill cultivation, and 6,448 were rented under the waste land rules. The rent of the land varies from sixpence to six shillings an acre, but this light tax is supplemented by the capitation tax on all males between 18 and 60 and the rice duty, the last of which is equivalent to an ad valorem duty of 14 per cent. There are no landed proprietors, and the extent of the holding of each cultivator is, on an average, a little over 4½ acres, excluding the grants of waste land.

Judicial.

The judicial statistics present few points requiring special notice. The proportion of convictions is small, compared with the total number of charges, a result which appears to be due to the large number of groundless complaints for petty offences: in at least one case out of seven the evidence was so weak that it was not even necessary to subject the prisoner to trial. The number of appeals from the decisions of the subordinate magistrates, which did not exceed four per cent. of the convictions, is to a certain extent a proof of the estimation in which those officers are held, though no doubt difficulty of communication somewhat contributed to the result, seeing that the appeals, when made, were as often as not successful. The number of capital sentences increased more than twofold, from 14 in 1869 to 33 in 1870, in consequence, apparently, of a violent outburst of dacoity in Akyab, in which more than half the cases were attended with murder. In civil justice, the establishment of a separate Small Cause Court at Rangoon led to a large increase of cases of that nature. In the other courts the litigation consisted principally of suits to recover money debts of less than 10*l*. The number of actions for divorce in Myanoung has steadily decreased, not because divorces are less frequent, but from their being ratified by the elders of the village without the intervention of our courts, a custom which is a fertile source of unhappiness and crime, and which has suggested the propriety of enacting a divorce law to require the lapse of a certain time before the issue of the order for separation.

Gaols.

Of the prisoners confined during the year, only 205 had followed any handicraft, while there were 5,714 agriculturists and 2,534 labourers. Though there are some confirmed thieves and cattle-stealers, the bulk of them are confined for casual offences, and do not belong to a regular class of criminals. The frequency of the escapes among the convicts is a serious evil, as the people are unwilling to give evidence against those who may soon appear among them to revenge their injuries, and their knowledge of the country and of our police enables them to give material information to the bands of robbers whom they usually join on the frontier. No less than 80 per cent. of the convicts who entered the prisons could read and write, while two out of every seven could do so well, a result of the teaching of the monastic schools, which, however, is entirely confined to the male sex.

Finance.

The particulars of the revenue and expenditure of British Burmah will be gathered from the following statement:—

Revenue and Receipts.	1870-71.	Compared with 1869-70.	
		Increase.	Decrease.
	£	£	£
Land	597,620	—	41,338
Forest	81,812	—	16,665
Excise on Spirits and Drugs	110,618	4,472	—
Assessed Taxes	26,224	10,729	—
Customs	277,265	73,877	—
Salt	12,054	—	778
Stamps	48,075	—	6,021
Law and Justice	24,186	—	2,521
Police	20,960	—	4,104
Marine	5,585	—	1,522
Education	447	—	18
Interest	91	—	810
Miscellaneous	1,056	—	1,174
Public Works, Miscellaneous	4,665	—	600
Total £	1,210,658	89,078	75,551
		Net Increase. £13,527	

Expenditure.	1870-71.	Compared with 1869-70.	
		Increase.	Decrease.
		£	£
Refunds, &c.	6,569	—	2,896
Land	93,327	—	4,188
Forest	40,074	—	2,072
Excise	10,726	—	6,514
Assessed Taxes	342	45	—
Customs	16,086	48	—
Salt	478	—	340
Stamps	1,232	—	193
Total Direct Claims on the Revenues £	168,834	93	16,203
Administration	33,218	—	2,665
Law and Justice	84,687	4,931	—
Police	134,581	—	4,905
Marine	24,161	—	33,898
Education	7,368	—	822
Ecclesiastical	4,280	—	910
Medical Services	14,529	3,541	—
Stationery and Printing	2,995	—	2,361
Political Agencies, &c.	11,616	4,207	—
Miscellaneous	6,549	2,574	—
Pensions, &c.	4,095	1,091	—
Public Works, Ordinary	142,586	—	40,018
Total Expenditure £	639,499	16,437	101,782
Surplus	571,159		
£	1,210,658	Net Decrease. £85,345	

BRITISH BURMAH.

The large decrease of the land revenue, which includes the sums realised by the land assessment, capitation tax, and fisheries, is due to the fact that a considerable amount of revenue properly belonging to the previous year was, as explained in last year's report, received in March 1870, and therefore credited in the earlier account. The demand of revenue for the year showed an increase of about 24,000*l.* The increased custom receipts were due to a great improvement in the rice trade, the revenue from this source at Akyab having doubled itself. The local manufacture of salt is gradually dying out, and the excise duty thereon is replaced by a tax of three annas per maund levied on the importations of foreign salt. On the side of expenditure, a considerable decrease will be observed under the head of Excise, in consequence of the cost of a much larger quantity of opium having been adjusted in 1869–70 than was actually used within that year. The marine charges in the last year were extraordinarily swollen by the repairs to the "Nemesis," and the transfer of the Moulmein and Bassein port funds, and to the absence of any such exceptional expense this year is mainly attributable the large decrease of 33,898*l.* under that heading.

Public works.

The total outlay on public works was 143,885*l.* from imperial and 37,097*l.* from local funds. The expenditure on agricultural works was far below the amount of the grant, in consequence of the sanction of the Government of India not having been received to the embankment schemes laid before it. There was also a considerable lapse of unemployed funds which might have been devoted to the progress of the Rangoon and Prome roads, if delay had not been allowed to occur in consequence of certain difficulties that might have been overcome. The Rangoon and Pegu road was nearly completed, but, in consequence of excessive floods in the summer of 1871, some portions of it will have to be raised still higher than the calculations for the high flood of 1868 had shown to be necessary. A project for a railway between Rangoon and Prome has been prepared and submitted to the Government of India.

Forests.

In the forest department an aggregate area of 76½ square miles had been finally demarcated as state or reserved forests, and a commencement had been made in the demarcation of others covering a further space of 57½ square miles. The net revenue of the department was 41,738*l.*, some 15,000*l.* less than in 1869–70, when the market for the sale of timber was unusually brisk.

Agriculture.

Wasteful as is the system of "toungya" or "joom" cultivation, it is found impossible to prohibit it entirely, as in some parts of the country it is the only means by which the people can obtain their food; it is, however, discouraged as much as possible, since the ground has to be left fallow for five years after being once planted. Owing to the moisture of the province, it is only on the Burmese frontier that wheat can be grown, but to the north large quantities of dry crops are cultivated. The area under sesamum has more than doubled during the year, in consequence of the large demand for exportation. The sugar-cane is chiefly grown in Aracan, where the plant is usually consumed in the raw state, the sugar commonly used by the people being a coarse kind of molasses extracted from the palm-tree. The area of cotton cultivation is described as having increased from 6,896 to 7,999 acres, but these figures do not represent the true extent of the growth, as the plant is chiefly cultivated in the hill clearings which, not being measured, are entered separately. The attempt in 1869 to introduce Hingunghât cotton proved a complete failure. The area of indigo cultivation slightly fell off, and that of fibres increased. Tobacco, which is entirely grown for home consumption, has been somewhat extended; it is of a very inferior quality, except that which is cultivated on the hills in the north of Aracan, and a great deal is imported from India. Hemp has been introduced into Akyab, the climate of which seems peculiarly suited for its growth. The number of cattle in the province rose from 475,391 to 521,424, and there was no disease during the year; the number of buffaloes also has increased by nearly 30,000 animals, and it is in contemplation to establish a buffalo-breeding farm. There were but 235,207 ploughs in 1870–71, to compare with 254,760 in 1869–70. The *average* yield of rice throughout the province is 1,393 lbs. per acre, but it varies from 2,500 lbs. in Prome and Myanoung to 850 lbs. in Thayet and Tavoy. The price of rice during the year averaged 4*s.* 3*d.* per 80 lbs., or 2*d.* less than in the previous year; cotton fetched 14*s.* 9*d.* on the average, instead of 18*s.* 5*d.* in 1869–70; tobacco varied from 50*s.* to 11*s.* 4*d.*, according to the district; salt from 6*s.* 3*d.* in Mergui to 1*s.* in the adjoining district of Tavoy, for each 80 lbs. The average price of a bullock is 5*l.* 4*s.*, and of a buffalo 6*l.* Teak timber runs from 5*l.* to 7*l.* per ton. Skilled labour varies from 1*s.* 6*d.* to 4*s.* a day, and unskilled from 6*d.* to 1*s.* 6*d.*, but during the busy season the wages of an ordinary labourer are as much as 2*s.* or 3*s.* a day.

In 1870–71 the trade of British Burmah to a certain extent recovered from the falling off of the previous year, as will be seen from the accompanying figures. In considering this statement, it must be remembered that much of the produce imported or exported by land is repeated in the returns of the sea traffic. The trade is liable to violent fluctuations, dependent almost entirely on the quantity of rice shipped in January, February, and March of each year, which varies from time to time according to the lateness of the crop, the paucity of tonnage, or the expectation of a reduction of duty. It was to the latter cause, namely, an anticipation that the duty on grain would have been reduced or abolished in April 1870, that the comparatively few shipments in 1869–70 were due, as much was held back which in ordinary course would have been shipped in March, in which case it would have fallen within that official year. As it happened, it was reckoned in the returns for 1870–71, the shipments of rice in which year amounted to 440,001 tons, or only 6,108 less than in the extraordinarily good season of 1868–69—a proof that the rice of Saigon has not displaced the Burmah grain, the export of which has in fact greatly increased since the duty was raised in 1867. This rice duty, indeed, falls entirely on the producer, and may be viewed simply as an addition to his land tax, paid indirectly. To the demand for treasure, consequent on this export of rice, is to be attributed the increase of the imports by sea. The trade in timber showed a further falling off in addition to that which occurred in the previous year, and is due mainly to the disturbed state of the frontier of Salween and Thoungyeen, and to the unsatisfactory state of affairs in Zimmay. In cotton twist and yarn and cotton piece goods the imports increased by 20 per cent., while in silk piece goods and woollens there was an increase in the quantity, but a diminution in the value. The reduction of the duty on cotton goods cleared at Rangoon for transmission to Ava, which was fixed by the treaty of 1867 at one per cent., has led to an enormous increase in the quantity so exported. The traffic in grain on the Irrawaddy has increased by 175,000*l.*, while on the Sittoung there has been a decrease of 23,000*l.* The quantity of the raw cotton exported during the year was not far short of that shipped in the height of the American war, but the value is of course very much less.

BRITISH BURMAH. Trade.

	1868–69.	1869–70.	1870–71.
	£	£	£
Seaborne Trade:—			
Exports - -	4,447,718	3,603,698	3,894,894
Imports - -	4,096,465	3,615,554	3,903,145
Total Seaborne - £	8,544,183	7,219,252	7,798,039
Inland Trade with Upper Burmah and Slave States:—			
Exports - -	1,232,407	1,283,588	1,326,240
Imports - -	882,097	905,308	1,014,769
Total Inland - £	2,114,504	2,188,896	2,341,009

The number of schools under Government supervision decreased from 182 to 81, and the number of pupils from 6,347 to 2,418; this great diminution arises from the withdrawal of the grants-in-aid from the Karen primary schools under different missionary bodies, in consequence of the ruling in 1869 that such schools were not eligible for grants from the educational cess. The rule has, however, been modified so as to admit of grants from the local cess in districts which are chiefly inhabited by Christians. The number of Government institutions has increased by three, while that of the missionary and private schools under the supervision of Government has decreased from 178 to 71. The educational funds of the province are, in a great measure, expended through missionary bodies; but it had come to be so much a matter of course that grants should be claimed by every existing missionary educational establishment, that, while the funds of the missions were relieved, very few schools were maintained which would not have equally existed without any Government grant.

Education.

The accumulations from the cess fund amounted to 12,000*l.*, and it was decided to devote about 8,000*l.* of this to the establishment and maintenance for five years of a training school at Rangoon, while the remainder was reserved for expenditure on buildings for primary schools. Four Deputy Inspectors have been appointed for Rangoon, Moulmein, Bassein, and Akyab, to distribute grants of school-books under the general control of the local committees, to visit the schools of the monasteries and occasionally take a class, and to endeavour by every means in their power to stimulate the priests to teach from our school-books, and adopt a more improved system of education.

The Government schools are seven in number, namely, the training school, two higher, and four middle class schools. Previously there were none of the higher class, but those at Akyab and Moulmein have been selected for the preparation of students for the Calcutta University. All the middle-class schools have also been re-organised,

British Burmah.

and a rate of 2*s.* is now levied in them, while the fee in the higher schools has been raised to 4*s.* a month. The training school at Rangoon provides for the training of 10 senior students as vernacular masters for the higher and middle-class schools, and 100 students for masterships in primary schools, and since the close of the year a female department has been formed.

Vaccination.

The working of the vaccination department was very successful in 1870–71, when 23,144 persons were vaccinated, some 3,000 more than in the years 1868–9 and 1869–70 together, while the average cost of the successful cases was reduced from 2*s.* to 7½*d.*

Madras.

Madras.

A geographical description of the Presidency of Madras is little more than a description of its coast, which, occupying as it does one-half of the coast-line of peninsular India, is the distinguishing feature of the Province. From Cape Comorin to where the Bombay Presidency commences, the distance is 540 miles, and a line drawn from the same point to Ganjam, the north-easternmost boundary of Madras, measures 1,187 miles. Parallel to the Malabar coast, on the west, run the Western Ghauts, at an average distance of 40 miles from the sea; parallel to the eastern coast, but at a greater distance from it, are the Eastern Ghauts. These two ranges form the buttresses of the tableland of the Deccan, and below the plateau of Mysore they are united by a range which crosses the peninsula. There is a singular abscence of good harbours along the coast of Madras, Pondicherry, the city of Madras itself, and other ports on the Bay of Bengal being absolutely without shelter for ships. Coconada, in the delta of the Godavery, by means of continual dredging, is capable of holding small craft. Tuticorin has a fair harbour, so has Cochin, and harbours of refuge might be constructed in the back waters at the foot of the Western Ghauts; but of good natural harbours, such as Bombay possesses in Bombay itself, and Sureya and Poshetra, in Guzerat, the province of Madras possesses none. The extreme length of the province inland, from Ganjam across country to the coast of Canara on the west, is about 950 miles. It has an area considerably larger than that of Great Britain and Ireland, and a population of about 27,000,000. The rivers follow the slope of the land from west to east. The most important of them are the Vigay, the Cauvery, the Pennaur, a portion of the Godavery, and the Kistna, which, with its tributary the Toongabudra, forms the northern boundary of Madras, and separates it from the Nizam's dominions. For administrative purposes it is divided into 21 districts. The Governor is assisted by a Council of three members (one being the Commander-in-Chief, and the other two members of the Civil Service) and by a Legislative Council.

Legislature.

Six Acts were passed by the Legislative Council of Madras, and received the assent of the Governor-General during the year under review. Act I. of 1870 was chiefly designed to regulate the use of the canals in the Godavery and Kistna districts, which had been managed in an unsatisfactory manner. Act III. of 1871 supplied certain wants which were felt to exist in the Towns Improvement Act of 1865. Among other things it extended the application of municipal funds to educational and other local purposes, such as the construction and maintenance of hospitals and dispensaries, sanitary inspection, and the collection of vital statistics. Act IV. of 1871, the most important Act of the year, has three objects, 1st, the construction and maintenance of roads and communications, 2nd, the diffusion of education, 3rd, the construction and repair of hospitals and other works of public utility, the training of medical practitioners, and the sanitary welfare generally of the people. The means for carrying out these objects are provided by a rate of one anna (1½*d.*) in the rupee on the annual rent value of all occupied land, by a house tax ranging from 6*d.* to 10*s.* per annum, and by a toll. To carry out the provisions of the Act the Presidency is divided into local fund circles, and in each circle the administration of the funds is entrusted to a Local Fund Board, of which not less than half the members must be owners or occupiers of land, or persons carrying on business or residing in the circle, and not in the service of the Government. By Act V. of 1871 the Madras Municipal Act of 1867 was amended in certain points, and the municipality was relieved from its liability to pay the cost of the town police.

Judicial establishment.

Excluding the small village communities, there are 699 judicial divisions in the Presidency, distributed among 760 judges, giving an average of one judicial officer for every 188 square miles and 35,000 inhabitants. The proportion of native to European and East Indian judges is rather more than three to one. The working of the courts during the year calls for no special comment; the number of suits instituted in the subordinate courts showed an increase of about 7 per cent. over the

corresponding figures of 1869; and in the High Court there was a still larger increase, about two thirds of the causes relating to money due on contract. In criminal cases, a strong tendency to increase is seen in petty assaults and other charges of a trifling nature, while offences against property and grave crimes have decreased; and in the number of dacoities especially there has been a very marked diminution. The gradual reduction of petty police cases has been observed since 1867, while the fact that nearly 94 per cent. of all persons arrested were punished by the magistrates shows that the police exercise discretion in their powers. Offences against the revenue laws, relating both to salt and excise, have increased for the last two years. MADRAS.

The strength of the constabulary, which had in the previous year been much below the establishment, was again diminished, and at the close of the year a reduced scale was formally sanctioned, while the pay of the lower grades was slightly raised to meet the enormous rise in the price of provisions and labour during the last 12 years. Deducting the men employed on state services, the proportion of the police was 1 to 1,424 of the population and one man for every $6\frac{1}{2}$ square miles. The hill tracts of the Northern Range have been perfectly quiet; and a great improvement has been effected in Jeypore, where, from want of supervision, the police had developed a strong taste for agriculture, in which pursuit they were aided by occasional resort to forced labour; these men have resigned the service rather than abandon their private occupation, and their successors are vigorous and efficient in their duties. Police.

The average number of convicts guarded in the district and central gaols shows a sensible decrease, and one or two small gaols were about to be abolished in consequence. No less than 59 convicts escaped during the year, of whom, however, 44 were recaptured; one band of 20, owing to negligence on the part of the authorities, collected at noon near the main gate of the Trichinopoly Gaol, and armed themselves with iron palisades which were lying loosely about, when, overpowering the sentry and killing the head constable, they seized some carbines and ammunition, and escaped across country; the ringleader was, however, shot in the pursuit, and 11 others were subsequently taken. The knowledge of the police regarding notorious depredators and suspected persons is becoming very accurate, and they are consequently more independent of the doubtful assistance of the village watchmen. Gaols.

The death-rate during the year was the lowest on record. The system described in the last report, under which convicts are enabled by good conduct and industry to earn remissions of their sentence to a certain extent, has worked well in all the gaols into which it has been introduced. Of the various branches of industry on which convicts are employed, service in the gaol is estimated at the highest value, while the repair of roads and labour in the garden are both more profitable than the manufactories, in which the progressive character of the work renders necessary the employment of raw hands, who require training before their labour becomes remunerative.

Petty as is the character of the majority of the registrations effected in Bengal, the statistics for Madras, especially in regard to sales and mortgages, show that the latter Presidency is the poorer of the two; the average value of instruments relating to immoveable property was little above 38*l.* The total number of deeds registered exceeded that of 1869–70, but the value of the transactions was but 5,995,897*l.*, the amount of the preceding year, in which an exceptional number of excise leases was registered, having been 7,616,645*l.* The increase in the registration of deeds in which the measure is optional has been unusually large this year. The experiment was tried of reducing the amount of the fees in certain cases, but after seven months the loss proved so great that it became necessary to revert to the former scale. Registrations.

The season of 1870–71 was even more favourable than that of 1869–70; in only three districts was a want of rain felt, and in most cases the fall was very timely and the tanks were well filled. Nevertheless, there was a decrease in the collection of land revenue, owing, in a considerable measure, to the fall of prices, which tended, though not uniformly, to lower the revenue derived from the land. The figures in the margin, which give the area of Government land under cultivation in all the districts except Malabar and South Canara, which have not been surveyed, show an increase over the previous year of 285,461 acres and 72,520*l.* in assessment. In Tinnevelly and Coimbatore alone was there any decrease caused by the season, but in Trichinopoly also the increase of the revenue demand in consequence of the discovery of concealed cultivation led to a relinquishment of the land. The public health was satisfactory on the whole, though Godavery and some Revenue. Land.

	Acres.	Assessed at
Unirrigated -	14,223,362	£1,581,183
Irrigated -	3,078,144	£1,572,048
Total -	17,301,506	£3,153,231

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other districts suffered from cholera. The investigations into the treatment of diseases of cattle met with success, and the people are becoming much more ready to adopt the simple system of separating the infected beasts from the healthy herds. The collections of land revenue show a decrease of nearly 86,000*l.*, in spite of the prosperous season, which might have been expected to raise the receipts by at least 100,000*l.*; the diminution is partly due to the fall of prices, which prevented the landholders from realising their share of the value of crops, and induced them to delay their payment, and partly to the circumstance that the receipts of 1869–70 were unduly swollen by the collection of arrears.

Excise. The increase under excise was due to the realisation of arrears and the more punctual payment of the demand. The increase of 7,328*l.* in the charge arose from the purchase of more arrack for the town of Madras, where the revenue is managed by Government on a special system somewhat resembling that of the Sudder distilleries.

Assessed taxes. The large increase under the head of Assessed Taxes is due to the augmentation of the income tax from $1\frac{1}{2}$ to $3\frac{1}{8}$ per cent., and to the greater difficulty of assessing the tax at the higher rate is attributable the increase of the charge from 2,686*l.* to 3,181*l.*

Customs. The partial suspension of trade resulting on the outbreak of hostilities between France and Prussia was compensated for by the activity of the last two months of the year; and the Customs receipts of the year were the highest on record. In

Trade. the value of the imports the increase in grey cotton piece goods from 735,873*l.* to 1,048,534*l.*, and in twist from 928,098*l.* to 1,043,217*l.*, is only accounted for by the abundance of the European supply seeking an outlet; the Indian demand has not been unusually brisk, and the market appears overstocked. On the other hand, the exports to European countries decreased enormously; in the article of cotton wool the value fell from 1,912,505*l.* to 1,060,413*l.*, because the European war and the abundant supply from America made the demand slack and prices low, and the holders could afford to wait for an improvement. The area cultivated with cotton fell from 1,729,304 to 1,398,048 acres, a natural result of the dulness of the demand for the last two years.

Salt. The increased monopoly price of salt was in force during the whole year, and brought an enhanced revenue of nearly 100,000*l.*; the sales for home and inland consumption exceeded those in 1869–70, but fell short of the quantity sold in the two preceding years; it seems doubtful whether the rise in price has had any appreciable effect on the consumption.

Stamps. The loss of 6,902*l.* under the head of stamps is attributable to the reduction of the rates by the Stamp Laws passed in 1869 and 1870. The substitution of stamps for money fees in the Court of Small Causes at Madras, however, led to an increased receipt of 22,000*l.*

Government farm. The Government farm, five miles from Madras, in addition to land occupied by village sites and other buildings, contains an experimental farm of 130 acres, and a model farm of 130 acres. The soil is sandy, and of the very poorest description, and almost entirely under dry cultivation; but soils which, when reclaimed a few years ago, could scarcely raise a blade of grass, are now in appearance equal to good arable soils, the capillary action and absorptive powers of the ground having been aided by heavy manuring and deep cultivation. Great improvements have been made on the model farm, which is estimated to bring an increased rental of eight per cent. above the average income of late years. The experimental farm is entirely devoted to experiments, of which the results are carefully noted; the breed of sheep has been greatly improved; expensive English agricultural machines are generally useless, but workshops have been erected in which all kinds of agricultural implements are made and repaired; wrought iron only is used, and an improved English plough, very superior to that ordinarily used by the natives, is made for 30*s.* After paying rent charges, interest, and all other expenses, there was a small balance to the credit of the farm, notwithstanding that only a small part of the land was fully cropped, and many charges were incurred incidental to the opening of a new farm.

Cinchona. The growth of the cinchona plants during the past year has been very satisfactory; among the new species introduced, some of the varieties of pitayo bark promise to be hardy and well suited to the climate. The trees manured with guano show no marked difference in their growth, and it will probably have little effect on the secretion of the alkaloids. The expenses of the plantation at Ootacamund have been reduced as low as possible; the Superintendent considers that the cultivation of the cinchona plant is a very good investment for speculators who can afford to wait eight or nine years for a return for their money; but, with the low quality of bark, it is hopeless to compete against that grown in America, though the red and crown barks, the latter

of which kinds takes 12 or 14 years to give a profit, would defy competition from any that America can produce.

Financial.

The difference between the expenditure in 1870-71 and in 1869-70 is mainly due to the fact that the charges of the earlier year were abnormally swollen by the extraordinary payment made to Prince Azeem Jah. The diminution in the charge for salt arises from the season having been unfavourable to the manufacture. The circulation of the paper currency considerably increased during the year, especially in the notes of the Madras circle; the issuing and cashing of notes freely at all treasuries has worked satisfactorily, and the public are clearly acquiring confidence in the paper; and, after covering all expenses, there was a surplus profit of 10,323*l.* from the interest of the Government securities held by the Currency Department.

Revenues and Receipts.	1870-71.	Compared with 1869-70		Expenditure.	1870-71.	Compared with 1869-70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£			£	£
Land Revenue	4,397,803	—	84,903	Refunds, &c.	28,430	—	3,587
Tributes	344,643	—	2,000	Land	428,105	6,712	—
Forest	33,979	—	15,876	Forest	29,486	1,561	—
Excise on Spirit and Drugs	589,266	19,244	—	Excise on Spirits and Drugs	31,027	7,328	—
Assessed Taxes	252,726	117,303	—	Assessed Taxes	3,181	495	—
Customs	304,897	28,412	—	Customs	17,340	314	—
Salt	1,264,230	99,494	—	Salt	127,223	—	14,233
Stamps	399,580	—	6,902	Stamps	16,735	—	1,827
Mint	1,572	—	835	Mint	3,729	—	3,505
Law and Justice	90,829	—	1,883	Allowances under Treaties, &c.	279,849	—	174,479
Police	33,468	—	1,778	Total Direct Claims and Demands on the Revenues £	965,105	16,410	197,631
Marine	10,461	8,140	—	Administration	127,745	—	8,700
Education	6,340	1	—	Minor Departments	15,583	15,583	—
Interest	16,134	1,921	—	Law and Justice	430,595	11,565	—
Miscellaneous	243,990	—	22,778	Police	339,003	—	32,172
Army—Miscellaneous	172,741	—	7,562	Marine	6,835	—	420
Public Works—Miscellaneous	16,265	—	30,706	Education	92,411	—	17,898
Irrigation	4,585	4,585	—	Ecclesiastical	36,399	—	1,823
Railways, Gain by Exchange	23,791	23,791	—	Medical Services	91,688	5,379	—
				Stationery and Printing	35,691	—	7,277
				Political Agencies, &c.	7,646	—	2,269
				Miscellaneous	101,034	—	10,831
				Pensions, &c.	196,208	—	38,468
				Army	2,914,163	—	79,650
				Allotments for Provincial Services	33,467	33,467	—
				Public Works, Ordinary:—			
				Public Works	581,046	—	76,620
				Supervision and Cost of Land for Railways	6,734	—	438
				Loss by Exchange on Railway Transactions	20,544	591	—
				Interest	88,607	—	1,520
				Public Works, Extraordinary	62,642	—	55,019
Total £	8,207,300	302,891	175,223	£	6,153,146	82,995	530,736
		Net Increase. £127,668		Surplus	2,054,154	Net Decrease. £447,741	
				£	8,207,300		

Public works.

The original imperial grant for Public Works was 814,620*l.*, but it was subsequently reduced to 767,120*l.*, which was thus assigned:—

	£
Military	60,000
Agricultural, Ordinary	159,620
Extraordinary	188,000
Other Services	183,580
Tools and Plant	15,000
Establishment	160,920

The allotments from local funds amounted to 232,817*l.*, of which 129,376*l.* was assigned to new works, 72,158*l.* to repairs, 29,937*l.* to establishments, and 1,346*l.* to tools and plant.

During the year the project for supplying water to the cantonment at Bellary was nearly completed, and progress was made with other military works at that station, Fort St. George, Chingleput, and Bangalore; while at Ootacamund the exterior of the male branch of the Lawrence Asylum was completed, and the schoolroom was handed over to the Principal; it was hoped that this portion of the building, designed to accommodate 400 boys, would be quite ready for their reception in June. Owing to the smallness of the grant for civil buildings, little progress could be made on the court-houses and jails which in 1868 were commenced in several districts; operations on the central jails at various stations were advanced, as also were those on the lunatic

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asylums at Madras, Waltair, and Calicut, on the Madras penitentiary, and the office of the Revenue Board.

Among agricultural works, the Samulcottah Canal, forming one of the chief lines of navigation in the Godavery district, and irrigating 20,000 acres, was completed. An important project has been prepared for extending the area of irrigation in the western delta of that river from 202,000 to 296,000 acres, and it is estimated that ultimately the revenue derived from the principal crop of the year will alone yield 20 per cent. on the outlay. A comprehensive scheme for the improvement of the system of irrigation in the eastern delta has also recently received the sanction of the Government of India. The irrigation of the Kistna delta is steadily advancing, but the difficulty of procuring labour increases every year. In Nellore the chief work in progress is the Survapully channel and its branches, intended to supply about 25,500 acres, forming the southern portion of the area commanded by the dam at Pennair. In the district of Chingleput three important works were under construction; the first, designed for the purpose of supplying the city of Madras with water, comprises a dam across the Cortilliar, a supply-channel to the Cholaveram tank, and another to the Red Hill lake, the depth of both of which reservoirs is to be increased to 15 feet. The second project is the enlargement of the Chembrumbankum tank to an additional depth of six feet, enabling it to command an extended area of 5,620 acres. The third work, namely, the Valloor dam across the Cortilliar, has been completed, its object being to utilise the surplus water which is not required for the Madras supply, by filling tanks at present dependent on rainfall drainage. In South Arcot a dam is being constructed across the Vellaur at Palandorai, for the purpose of irrigating an area of 16,650 acres; that at Mahmatoor across the river Manimuthanuddy has been almost completed; and sufficient progress was made on the Pombay channel, which is designed to divert the waters of the Pooniaur into that river, to enable the next freshes to pass down the course and enter the Pombay. In Tanjore regulating works are being constructed at the head of the four chief branches of the Vennaur, the area irrigated by which is 330,581 acres; a return of nearly 10 per cent. is expected from the saving of remissions of revenue on the lands now flooded by only one of these streams, the Vellyaur, the area affected by which is little more than one-twelfth of the whole acreage. In Tinnevelly a dam is being constructed at Streeviguntum, to utilise a quantity of the surplus water of the Tambrapoorney by irrigating a tract of about 32,000 acres, of which one fourth is already imperfectly watered.

The new Coonoor Ghaut enables the journey from Ootacamund to Coimbatore, a distance of 60 miles to be performed in $8\frac{1}{2}$ hours.

Railways.

The length of open line on the north-west portion of the Madras Railway was increased during the year by 125 miles, making a total distance of 832 miles open on this line and completing the Madras Company's portion of the through line to Bombay.

Irrigation and canal company.

The dam of the Madras Irrigation and Canal Company at Soonkasala and the headworks were uninjured by the floods during the rainy season, and the work seems likely to remain secure. Very serious damage, however, was sustained by the first and second sections of the main canal from flood water entering it during a violent storm on the 7th of August 1870. A stream about five feet deep was passing down the canal from the Toombuddra, when the fall of rain caused it suddenly to rise to a height of 9 or 10 feet, and the banks and walls were breached in eight places. The cause of the damage was as much the inferior quality of the works as the insufficiency of the means of escape provided by the calingulahs and culverts, over which there was not more than 1 or $1\frac{1}{2}$ feet of water passing at the time, representing a depth in the canal which the walls or embankments ought to have sustained.

By the 30th of June 1871, the whole of the sanctioned works in connection with the Main Canal were completed in a general sense, and so far the company carried out their agreement with the Government; but repeated breaches of the banks or walls, which have occurred on each occasion on which water has been let into the canal, show conclusively, in the opinion of the Government of Madras, that this part of the work has not been properly executed. The arrangements for the discharge of surplus water were also proved by the flood above mentioned to be insufficient; and therefore, as the canal could not be considered to be in working order, the Company appeared to have failed in this respect to fulfil their contract. Most of the earth forming the embankments has been thrown up at random without selection, and it has not been consolidated by the use of rammers and water. The soil through which the canal is excavated is generally of bad quality, and does not favour the growth of vegetation which would protect the slopes, and the masonry is often inferior. The tendency of the work will be towards improvement, if it can be made to retain a moderate quantity of water, because the process of silting will stop the leakage,

and the saturation of the banks will cause them to settle and become more compact. The detailed reports of the Government engineers, and the replies of those employed by the Company, are contained in the papers laid before the House of Commons this session. MADRAS.

Very considerable progress was made with the excavation of the channels for the distribution of the water and the sluices in the main canal connected with them, nearly all of which have been built. It was thought undesirable to hold the company to their agreement for the completion of the various distribution schemes by the 30th of June, since the work already executed was far in advance of the actual demands of the cultivators, whose applications for water had not been numerous, and the expense of maintenance without return was to be avoided. About 350 miles of channel had been sanctioned, of which 200 had been executed, commanding nearly 90,000 acres of land.

Up to the 31st of March 1871 the total collections for irrigation and supply of water to the town of Kurnool were 4,786*l.*, of which 738*l.* were received in the last year. The area irrigated was 1,998 acres in 1869–70 and 2,647 in 1870–71; the water-rate was 12*s.* per acre for ordinary crops and sugar-cane, about 100 acres to which water was only occasionally supplied being charged two, four, six, or eight shillings respectively; the demand amounted to 1,145*l.* in 1869–70 and 1,382*l.* in 1870–71, but, owing to remissions, this was reduced to 1,049*l.* in the former and 782*l.* in the latter year, the sum of 400*l.* for the town supply being in each case included. The total expenditure in India from the commencement has been 1,471,750*l.*

The most important events in the Marine Department during the year were a cyclone on the 4th of November, which caused considerable havoc at the ports of Bimlipatam and Vizagapatam, and a similar visitation on the western coast in January, resulting in the disastrous loss of the "General Outram," with about 60 persons; the successful laying of a submarine telegraph cable from Madras to Penang and the Straits Settlements; the completion of the works for supplying water to shipping at the Madras Pier; and the visit of Mr. Robertson, a marine engineer selected for the purpose, to the several harbours on the Madras coast. For the first time direct shipments to Europe viâ the Suez Canal have been made from the port of Bimlipatam; the trade of Masulipatam entirely ceased during the European war, and that of Cochin was much depressed from the same cause. The Paumben Channel has been used this year by a larger and better description of vessels than before, and some drawing 11 feet 9 inches have passed through, though with great difficulty. At Calicut a screw-pile pier has been erected, and the temporary pier at Beypore has been found useful for the embarkation of troops. The great development of trade at Mangalore in recent years has placed it only second to Cochin among the ports on the Malabar coast, but, as in other cases, it suffered from the effects of the European war. Marine.

A commencement was made in the Madras Presidency of the system of arming the native regiments with Enfield rifles, as weapons become available by the equipment of British troops with Sniders. The general condition of the European army was very good; the native army also was much healthier than in 1869–70. Military.

The number of clergy in the diocese of Madras was 196 on the 31st of March 1871, of whom 38 were Government chaplains and 77 were native clergymen. Ecclesiastical.

The number of schools in the Madras Presidency was increased during the year by 345, and that of the pupils by 9,757, the advance taking place almost entirely in private schools working under the system of grants by results. Scholarships have been founded at the Madras University by the Maharajahs of Travancore and Cochin for the benefit of students from their respective countries, and a Sanscrit prize has been instituted by the liberality of a native member of the Legislative Council. An important step has been taken in the matter of female education by the opening of a normal school for the training of female teachers; as far as possible, without risking the sacrifice of efficiency, the prejudices of the pupils and their friends are respected; and the counsels of the Hindoo Committee who act as advisers have greatly smoothed the way. The work has commenced with seven stipendiary pupils, but it is undeniable that the superintendent has a very uphill task before her. Education.

In the judicial system of Travancore there is perhaps too great a tendency to centralisation, but in other respects the courts afford satisfactory evidence of progress, and the integrity and ability of the bench commands the confidence of the public. The land revenue showed a diminution, in consequence of a failure of rain in the southern portion of the country. The cultivation of coffee, for which South Travancore is especially suited, now covers 16,000 acres; the state has treated the planters liberally as regards roads, and the produce can with great facility be conveyed to the port of shipping. It is disappointing to find that the great reduction of Travancore.

MADRAS. the tobacco tax has been accompanied by a decrease also in the consumption; but this is attributed to the increase of smuggling, which the duty is still sufficiently high to encourage. The increased price of salt in no way checked the consumption, which is considered to be at its maximum. In education Travancore takes a high position; the college at Trevandrum may be fairly compared with any provincial college, and there are 16 English and 31 vernacular schools, containing respectively 1,130 and 2,426 pupils. One point calls for reform, namely, the rejection, on the ground of caste, which has been known to occur in some instances, of applications for admission into the Government schools. Female education is not neglected by the Maharajah, there being at the capital an English school which gives at a nominal cost an excellent teaching to the daughters of the East Indian population, and two native schools where upwards of 200 girls receive a sound vernacular education. The expenditure on public works has risen from 45,000*l.* to 85,000*l.*, and the money has been admirably laid out in the construction of roads, &c.

Cochin. Owing to the reclamation of waste land in 1870–71 the collection of revenue in Cochin was slightly in excess of that in the preceding year, and notwithstanding that the season was unfavourable for the ordinary rice cultivation, the price of agricultural produce was kept down by large importations of rice, and the health of the country was good. In this State also the enhanced price of salt had no adverse effect on the consumption, a fact which, coupled with the increase of the revenue from excise, testifies to the prosperity of the working classes. A new high school has been opened at Ernakolam. There has been a creditable increase in the outlay on public works, and it has been suggested to the Government that a further portion of the unemployed funds might be advantageously laid out on works of a reproductive character.

BOMBAY.

BOMBAY. The Presidency of Bombay, occupying a narrow strip of territory some 1,050 miles in length, consists of (1) the Regulation Provinces, which are divided into two commissionerships, 17 districts or collectorates, and further into sub-collectorates and talookas, (2) Sind, which is governed on the non-regulation system, and (3) native states. The total area is estimated at 205,665 square miles, of which the native states occupy less than one third, Sind more than one fourth, and Bombay proper the remainder, amounting to 81,852.

Introduction. The year 1870–71 seems to have been pre-eminently one of peace and material prosperity throughout the Bombay Presidency. The public health was good. The deaths from cholera amounted to 2,666 only, against 53,365 in 1869, and those from small-pox (4,606) showed a considerable diminution over the returns of previous years. A moderate rainfall was followed by a fairly good season, and the general well-being of the country was evinced by an increase, amounting to 27,792*l.*, in the revenue derived from land. The receipts on account of opium, salt, and stamps increased also largely during the year, but under the head of Customs there was, owing to the war in Europe, a falling off of more than 100,000*l.* in the import duties. Education made steady advances both in British territory and in the native states, and the fact that the greatest improvement took place in the lower class schools is an earnest of the intellectual quickening which may be said to have begun among the masses.

The Administration Report, of which this is a resumé, has been prepared with care. The political section in particular being commendable for the connected account it contains of the numerous native states with which the Bombay Government has relations, and of the important events that have taken place during recent years at Muscat and in the Persian Gulf. The year under review was unusually eventful in social and political events. In connexion with the visit of H.R.H. the Duke of Edinburgh to Bombay, it is stated that the neighbouring chieftains who assembled there to welcome him were impressed by the advantages offered by schools, good roads, and useful irrigational works, and that many returned to their own states with a wish to emulate what they had seen.

The Bombay Government has relations with the following native states:—

Northern Group.	*Southern Group.*
1. Baroda.	7. Kolhapoor.
2. Kattyawar.	8. States in Southern Mahratta country.
3. Pahlunpúr.	9. Akulcote.
4. Mahle Kanta.	10. Sawunt Waree.
5. Rewa Kanta.	11. Junjeera.
6. Kutch.	

12. Petty states under the collectors and political agents.

The position of these states with regard to the paramount authority varies according to custom and treaty, but in all of them a representative of the British Government is maintained, whose right of intervention, where justice or policy seems to require it, is recognised by their native rulers. The resident at the court of the Guikowar of Baroda watches events, but does not interfere with the administration of the country. In Kattyawar on the other hand, a country nearly as large as Oude, with more than 2,000,000 of people and no less than 488 distinct jurisdictions, the political agent has frequently to take upon himself the temporary management of states, owing to the minority, or sometimes the ill-behaviour, of their chieftains. His decision is moreover frequently needed to settle disputes between independent chiefs who own no superior but him, and altogether his duties are more onerous than those of any other agency. Pahlunpúr, Mahee Kanta, and Rewa Kanta were tributary to the Guikowar, but his inability to keep them in order compelled the Bombay Government to place them under a political agent, who collects and hands over to the Guikowar the tribute due to him. The present political relations of the Bombay Government with the Rao of Kutch also became necessary in the cause of order to check the frequent expeditions which he was in the habit of making against Kattyawar and other parts of Guzerat.

In the heart of the Maratha country lies Kolhapoor, the centre of the southern group, consisting of Akulcote and the Southern Maratha States on the east and Sawunt Waree on the west, while the small territory of Junjeera lies on the coast, politically as well as historically disconnected from the others. Intervening in a straggling line between the northern and southern groups are the petty states under the charge of the collectors and agents of Surat, Khandeish, Nassick, and Sattara. This being the geographical position of the several native states, the report proceeds to give a slight sketch of the different races who inhabit them, and to indicate the relative position occupied by the aboriginal races, the Rajpoots, the Mussalmans, and the Marathas, who have in turn played their part in the history of Western India. Beginning with Guzerat the writer says, "Just as in the science of geology each "periodic change has left its history written in sedimentary deposits and imbedded "in the order of the strata, so has each successive wave of conquest passing over "Guzerat left its traces recorded in the present position occupied by the various tribes "who have acted parts in the history of the past. The Kolees, Naikras, Bheels, and "other aborigines, pushed back from the fertile plains, have made a final stand for "existence in the distant sandy tracts of parts of Pahlunpúr, where little else but "scrub-jungle is to be seen, and in the rocky ranges of Rewa Kanta and portion of "the Mahee Kanta. On the other hand the proud and warlike Rajpúts have main-"tained their ascendancy in those outlying provinces which they first entered on their "way from Tatta in Lower Sind. Thus they are still the reigning family in Kutch "and are to be found in the peninsula of Kattyawar. The Marathas, the latest "conquerors, are dominant at Baroda and enjoy the rich valleys and fertile spots of "Guzerat, whilst the Mahomedans, whom they ousted, are yet found in the distant "districts where formerly they held their tenure under the Delhi officials of "Ahmedabad." South of Guzerat aboriginal races inhabit Peint and Jowar. In the southern group of the political system, as might be expected, the influence is essentially Maratha, and the only other ethnical elements are the aboriginal tribes, of which the Ramoosees are the most important, which are to be found in the wilder parts of the country, and the Hubshee dynasty in Junjeera. This state was originally a dependency of the Mussalman monarchy of Beejapúr, and was the head-quarters of the Seedee Admiral of that state. When the Moghul power in the Deccan fell, the chief assumed independence, and has maintained it, subject to the control of the British power, ever since.

Baroda.

The death of the Guikowar, on the 28th of November 1870, without issue, summoned to the throne of Baroda his youngest and only surviving brother, Mulharrao, who was at the time a prisoner at Padra, where he had been long confined for conspiracy against his late sovereign. The condition of the Ranee on her husband's death rendering it possible that a son might yet be born to succeed to his father's throne, it was considered premature to recognise Mulharrao in a higher capacity than that of regent; and, at the lady's request, and with the full assent of her brother-in-law, she removed to the British Residency, to be under the special charge of an European officer and his wife. The subsequent birth of a daughter, after the close of the period now under review, removed all obstacle to the full recognition as the Guikowar of his highness Mulharrao, who had, while yet regent, married Mahalsabaee, the daughter of a petty landholder living near Poona.

Little has yet been done towards administrative reform in the Baroda State, though the need of a thorough reorganisation appears to be recognised by the newly appointed

Bombay. minister, Gopalrao Myral. Notwithstanding the heavy assessment, however, lands along the boundaries are taken up by cultivators from the British villages, for whom the area fit for cultivation within the English territory is insufficient. The total revenue of the State is 1,420,000*l.*, of which no less than 1,150,000*l.* is consumed by the army and state establishments. The private expenses of the Guikowar are very great, and large sums are devoted to public display, while but an infinitesimal fraction is devoted to reproductive works. The only undertaking of any importance begun during the year was the conversion of the tramway from Dubhoee to Kurjun into a narrow-gauge railway, for which the cost was estimated at 37,000*l.*

Education. A good commencement has been made in the cause of education, for which a system has been laid down and is about to be carried out under the advice of the Director of Public Instruction. A house has been appropriated for a high school, capable of accommodating 500 pupils, and a master has been appointed on a liberal salary.

Kattyawar. In the province of Kattyawar civilization is still in its infancy, but considerable progress has been made within the last seven years. Oppression of rights is no longer met by an appeal to physical force; 598 boundary disputes were settled during the year by the decisions of commissioners or the intervention of the assistant agent; the statistics of crime exhibit no increase; and offenders, when detected, are punished with the severity demanded by the gravity of the crime. The increase of civil work affords evidence that many can find redress for their wrongs in the constituted courts; while the introduction of schools and colleges, and the increasing outlay upon public works, testify to the material progress of the province.

The visit of the Governor of Bombay to Kattyawar, in December 1870, created a profound impression upon the chiefs, who, residing within the limits of their own states and glorying in their exclusiveness, rarely have such an opportunity for interchange of courtesies, or insight into one another's feelings and customs, as was afforded on this occasion. One result which followed immediately was the opening of the Rajkoomar College, intended to afford a training for the young chiefs of Kattyawar, and to free them from the unhealthy atmosphere of the zenana. The first term saw the names of 13 young princes on the rolls of the college.

A stimulus was also given by the visit of the Governor to the progress of useful improvements; in Nowanuggur water works were commenced, in Drangdra tanks were constructed, roads opened, and cotton presses set up, whilst Joonaghur engaged a competent engineer, and expended nearly 10,000*l.* in various works. The population of the territories benefiting by these operations is estimated at 850,000.

Among the second-class states of Kattyawar, no less than four, namely, Limree, Rajkote, Gondul, and Morvee, are, in consequence of the minority of the chiefs, at present under the management of a special assistant or of joint administrators. The progress in Limree has been very marked; large arrears of debt have been liquidated, and the revenue exhibits a considerable increase; 2,500*l.* has been spent on public works, a dispensary is opened, and the efficiency of the police improved. The last point is one demanding attention in most of the states of Kattyawar, where the security of property seems to rest rather upon the vigilance of the people themselves than upon the organisation of the preventive forces at the disposal of the Durbars; the most glaring instance is in Morvee, where the excesses of the Deda outlaws seem to have paralysed the state and spread terror among the people; a lac of rupees has been spent in the attempt to suppress them, but as yet unsuccessfully, as the position of the neighbouring state of Muchoo Kanta favours their retreat and concealment.

Of the smaller states there is little to remark; the good promise shown by the chief of the most important of them, Porebunder, having died away without fruit. In another of the petty states, named Moolee, the position of parties has drawn attention to a question which needs to be carefully watched. The chief, armed with the criminal and civil jurisdiction which the sovereign British power has entrusted to him without appeal, demands obedience as an independent sovereign from his kinsmen or Bhayats, while they ignore his title except as identified and bound up with themselves. The system in Kattyawar was feudal, except that political and social rights were originally attainable, not on the terms of military equality, but by relationship to the prince; in process of time this tie has become obscured, and the Bhayats have learned to acquiesce in the position which the will of the chief may assign to them uninfluenced by consideration for their consanguinity or fear of their legal rights. Their only remedy against his oppression being the right of insurrection, which the British Government will not tolerate, the chief, entrusted with despotic power in judicial matters, is tempted to use it without restraint. The steps taken by the Government to guard against this evil will be noticed in future reports.

In the Rajkoomar College, of which the opening has been already mentioned, scholarships have been founded in memory of Captains Hebbert and La Touche, as well as other endowments. The Nawab of Joonaghur has given 6,000*l.* for the erection of a high school facing the college. During the year 70 new schools have been opened, and more than 16,500 pupils received instruction in the 291 schools existing in the province. BOMBAY.

The famine of Pahlunpoor, mentioned in the Report for 1869–70, abated at the commencement of 1870–71; large supplies of grain were imported by the Government, and subsequently by traders; and grain which had been selling at 14 lbs. for a rupee was before the close of the year procurable at the rate of 30 lbs. for the same price. The revenue of the state shows a progressive increase, but the expenditure does the same, and the Dewan appears indifferent to administrative reforms. Despite the diminution of distress, little improvement is shown in the criminal statistics. No works of importance were executed, the surplus revenue being devoted to the liquidation of the Dewan's private debts. In education alone is the report of a satisfactory character; two new schools were opened at Deesa and Dhanera, and the eight previously in existence made good progress. Pahlunpoor.

The estates of the young chiefs in the Mahee Kanta who are still in their minority are being carefully managed, and the arrears of past debt gradually paid off. The general condition of the people is prosperous, and in the villages within twenty miles of the railway station at Neriad a marked progress is observed in the cultivation of cotton and tobacco. The transit duties on food, which were remitted by the chiefs last year on account of the scarcity, have not been re-imposed, and grain is cheaper than it has been for five years; the collection of revenue shows a slight improvement, and trade seems prosperous; nevertheless, the statistics of crime were for some reason unusually high, as regards both the number and the gravity of the offences. Education appears at last to have made a start in the district; there were 10 sons of chiefs under instruction at Ahmedabad and Sadra; and the number of village schools has increased from 23 to 36. Mahee Kanta.

Within an area of 140 miles from north to south, and half that distance from east to west, is contained a number of separate states known as Rewa Kanta, over whose various administrations the British political agent has to exercise control, while the regular work of supervision is increased by his direct responsibility for the revenue management of those states, containing nearly 1,000 villages, which have either been placed under attachment or of which the chief is under age. The rival claims of the Babee of Ballasinore and the Raja of Loonawarra to the possession of the Veerpúr pergunna, which it has for 20 years been necessary to retain under attachment, have at length been finally compromised, the former chieftain relinquishing the tribute due to him from Loonawarra, on condition of his receiving all the proprietary and other rights in the disputed villages. In the states of Barrea and Loonawarra, which are under Government management during the minority of the chiefs, the revenue is increasing, and a great improvement is anticipated from the completion of a regular survey and assessment. With one or two exceptions, however, the chieftains of Rewa Kanta show little anxiety to improve the administration of the revenue in their estates; the land bears all the burden of the state expenditure, and no attempt has been made to develope the wealth of the forests, or to relieve the cultivators by a more judicious policy. Rewa Kanta.

In the settlement of civil suits there is considerable delay, arising partly from the intermixture of jurisdictions and consequent difficulty of obtaining witnesses, and partly from the multifarious duties to which the judicial officers have to attend. The same cause contributes to the unsatisfactory condition of the criminal jurisdiction, while the proximity of the native states under Rajpootana affords a ready shelter for offenders. The greatest incentive is afforded to crime in the native states, where the only mode of recovering stolen property is to employ the services of a private informer, who, on receiving a stipulated reward, points out where the property is to be found; Ballasinore is the only state which evinces any anxiety for the improvement of its police.

The course of education in Rewa Kanta has been retrograde for the past three years; the number of pupils has diminished, while the cost has risen from 1,200*l.* in 1868–9 to 1,600*l.* in 1869–70, independently of large sums spent on school buildings. The chief public works are those connected with the road from Godra to Dohud, which forms the principal channel of communication between Guzerat and Malwa.

The general view of Rewa Kanta thus presents a state of backwardness and apathy; but a large portion of the country is now placed under the direct supervision of the

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political agent; and it may be hoped that, freed from the opposition of the princes, that officer will be able to inaugurate reforms tending to meet the requirements of a progressive civilization.

Kutch.

The plague of locusts in Kutch, described last year, was followed by a scanty fall of rain, and the bad state of the crops led to a corresponding diminution of revenue. It is to be regretted that the Rao, in other respects of so enlightened a character, should have thought fit to reimpose the transit duties on grain, which had been suspended during the famine in Rajpootana. He has, however, continued the salutary reforms which he had commenced in the revenue department, and the separation of the functions of magistrate and farmer of revenues has been extended to other districts than Mandavee, where it was initiated. The opposition shown to the introduction of vaccination exhibits no sign of change; and in a country of 600,000 people only 648 operations were performed during the year.

A similar dispute to that mentioned in the description of Kattyawar is going on between the Rao and his Bhayads. The British Government are only interested in the matter in so far that they desire to see a strong and just administration in Kutch, and that their engagements bind them to protect the guaranteed rights of the Bhayads.

The progress of primary education is rapid, and the inhabitants of all the large villages have shown themselves ready to contribute towards the foundation of schools. The Alfred high school, founded at Mandavee by the Rao at a cost of 15,000*l.*, in honour of the Duke of Edinburgh's visit to Bombay, was opened on the 20th of March 1871; two scholarships have been instituted in it, and the head master supervises educational matters throughout Kutch. The province contains four libraries, in a very thriving condition. At the Bhooj Dispensary and Hospital the native medical officer in charge has performed numerous operations with signal success, and more than 8,000 patients received treatment during the year.

Kolhapoor.

The melancholy death of the Raja of Kolhapoor at Florence, in November 1870, was mentioned in the Report for 1869–70. The sad event called forth expressions of sympathy from the British Government no less than from his fellow countrymen, the sincerity of whose sorrow was marked by a memorial fund, exceeding 2,000*l.*, which was raised in Kolhapoor and the Southern Mahratha States, and devoted to the foundation of scholarships in the Rajah's name, in the high school at Kolhapoor. It was determined by the Government that a suitable boy should be adopted, with the consent of the family, to succeed to the throne; but the decision had not been promulgated at the close of the year.

The financial condition of the state continued to be very satisfactory. So large a portion of the revenues, however, is alienated, that an inquiry into all claims of this nature has become a matter of much importance, and in the course of the year 1,214 cases have been examined, resulting in an annual increase of 600*l.* to the state revenues. The progress of education has been of an unusually satisfactory character, 14 schools and 1,285 scholars having been added to the previously existing numbers. In one of the schools a separate room has been assigned to a girls class, in which 21 girls have received instruction; and it is gratifying to learn that the advantages of education are appreciated by the better classes as well as the lower orders of society.

Great progress has been made in the department of public works, on which 30,800*l.* was spent. The chief undertakings are the bridges over the Punchgunga and Krishna rivers and the building for the Rajaram High School.

Southern Mahratha States.

In the administration of the Southern Mahratha States, a great difference is observed between those managed by the British agency and those which are governed by their native rulers. The chief of Sanglee is immersed in debt, complaints are frequent, education has declined, and public works are at a standstill. The condition of Meeruj was much the same when in 1861 it fell under British management owing to the minority of the chief; the exchequer was empty, education unknown, and there were no public works in existence. The Report for 1870–71 shows a surplus of 56,850*l.*, principally invested in Government securities, and all arrears of debt have been liquidated; 17 schools are opened, and education is being given to 1,000 boys; while the expenditure on public works, including that from local funds and private contributions, exceeded 8,000*l.* The chief, having attained the age of 22, has now been entrusted with the management of his own affairs.

The younger chiefs of Koorundwar have supplied that town with water from the Punchgunga, and they maintain an Anglo-vernacular school entirely at their own expense. Some interest in the work of education is also shown by the chief of

Jumkhundee, the ladies of whose family learn English; and the chief himself is intelligent and manages his estate satisfactorily, and has contributed liberally to public works in his domains. BOMBAY.

Moodhole also has the advantage of British supervision, its chief being a boy of 11; the surplus at the end of the year was 63,464*l.* and 7,600*l.* had been expended on public works. There are 9 schools, affording education to 450 boys. Ramdroog is creditably administered by its chief, who has introduced revised rates of assessment into some of his villages, and is a patron of education.

The report of the Southern Mahratta States may thus be considered satisfactory, testifying to the zeal of the political officers in promoting the welfare of these Jagheer estates, while the good will of the people is shown by their ready co-operation in subscribing for works of local public utility.

Fair progress has been made in liquidating the debts of the state of Akulcote since it was taken under British management. The past season was good, the rain abundant, and the crops above the average, with the exception of that of cotton, which proved a complete failure, a result which, following on a similar disaster last year, has greatly discouraged the cultivation. There are 10 vernacular schools, giving instruction to 487 boys, while 91 scholars attend the Anglo-vernacular school at Akulcote. The death of the Raja occurred on the 6th of August 1870. Akulcote.

The reports from Sawunt Waree exhibit a steady improvement in every part of the administration. The young chief, who is 8½ years old, is rapidly recovering from the baneful influences formerly exercised over him; and most of the elder members of his family seem honestly desirous of assisting the cause of order and good government. The sanitary condition of the country was good during the year, the rainfall abundant and seasonable, and the price of food lower than at any time since 1863. Improvements have been introduced into the mode of collecting the revenue, and the people seem pleased with the arrangement; and a detailed survey of the state is about to be undertaken. Disappointment has been caused by a diminution in the number of pupils attending the English school, which had risen in 1869 from 86 to 129, but fell again last year to 99. At the 19 vernacular schools there are 1,153 boys under instruction, and the girls school shows a gradual progress. Sawunt Waree.

The unsatisfactory condition of Junjeera was mentioned in last year's report. So much did the Sirdars chafe under their diminished importance in the state and the influence of the Court favourites, that in May 1870 they took advantage of the Nawab's absence in Bombay to proclaim his son as their chief in his stead. On hearing of the revolution, the British Government took the state under its temporary management. After a careful inquiry into the charges of misgovernment brought by the Sirdars against the Nawab, it was determined to re-instate him, on condition that he should follow the advice of the British Government, and assist the agent in every way; that he should consent to certain administrative reforms, and appoint a tutor for the education of his son; and that he should dimiss his favourite, and submit to the arbitration of the agent all disputes arising out of the revolution. On these conditions the Nawab returned to his fort triumphantly at the end of 1870, and during the last three months of the official year a magistrate and tutor were appointed, and some steps were taken to adjust the revenues of the country, but indications were not wanting of a suppressed, though determined, feeling of antagonism between the parties in the state. Junjeera.

Among the petty states which come under none of the preceding groups, Cambay attracted the attention of Government, with reference to the settlement of the transit duties on goods. Under the amended articles, half the dues are shared between the British Government and the Nawab, and the other half is devoted to the maintenance of a fixed establishment for the protection of commerce, and the promotion of the education and the health or convenience of the people of Cambay. Despite the continued indebtedness of the Begum of Peint the progress of the district under British rule has been satisfactory; the water supply is improved, roads opened, jungles cleared, and schools established in various parts of the district. In Savanoor, a revenue survey has been completed, and a settlement of Inams has been commenced. Large public works have been carried out, and schools opened with the best results. Cambay. Peint. Savanoor.

The general policy adopted towards the wild tribes on the Sind frontier was to withdraw the bulk of them from the hills, and settle them in agricultural pursuits on the plains; but, inasmuch as the border must always furnish a home for a certain portion of the robber clans, it was determined, in those instances, to take into pay the leading chiefs and the best behaved of their followers. In carrying out these arrangements on the eastern hills, it became necessary to consider the effect they would have on the Sind.

Beloochistan. territory of Khelat on the west, where the Murree and Boogtee tribes, being restrained from incursion into the British dominions, were accustomed to commit occasional depredations. A conference on the subject was held in February 1871 between the Lieutenant Governor of the Punjab and the Commissioner of Sind, but the matter was still under the consideration of the Government at the close of the year.

At the end of 1870 Commissioners were appointed to demarcate the boundary between Persia and Khelat, and the inquiry was successfully carried out under the auspices of Major General Goldsmid.

Persian Gulf. The contest which had continued, since the death of Seyyid Sâid in 1856, for the sovereignty of Omân, resulted at the close of January 1871 in the death of Azzân, and the entry of Seyyid Toorkee, Sâid's third son, into Muscat. The independent Arab chiefs in the Persian Gulf evince generally a greater desire for peace, and more constantly refer their disputes to the arbitration of the resident, than formerly; a result ascribed to the firm action of the Government in punishing the piracies in 1868–69. Commerce has developed largely of late years, especially in the export of Persian opium. The increase of steam communication has been considerable, both in the number and tonnage of the trading vessels, and, in the opinion of the resident, there is every indication of the Euphrates route resuming its ancient position as a main line of commerce between the east and west.

Zanzibar. The death of Seyyid Májid, the Sultan of Zanzibar, in October 1870, caused great apprehension for the lives and interests of the European population. Seyyid Barghâsh, a younger brother of the Sultan and of Seyyid Toorkee, was on the spot, and his succession was recognised by the political agent; but no sooner was this done than he threw off his mask of conciliation, and repudiated his engagements with reference to the suppression of the slave trade, and he even went so far as to issue a proclamation to his subjects, ordering them to eject all natives of India from their plantations, and to prevent them from carrying on trade beyond the precincts of the town. Up to the close of the year under report he manifested an open hostility to our power, and an intention to evade the solemn undertakings of his predecessors.

Judicial. The separate judicial establishments of the regulation provinces, Sind, and the city of Bombay comprised 7 judges of the High Court at Bombay, a judicial commissioner for Sind, 15 district judges, 10 assistant judges, 10 judges of small cause courts, and 103 subordinate judges, or a total of 146.

High Court, Bombay. The accumulation of arrears on both the original and appellate sides of the High Court has led to the appointment of an eighth judge to the bench, but it is hoped that this addition will not become a permanent one.

Regulation districts. In the regulation districts 139,926 suits were instituted during the year, or nearly 8,000 more than in 1869; and here again the district and subordinate courts seem hardly able to cope with the increasing amount of work that falls upon them. The value of the suits instituted was 1,373,460*l.* in 1870, against 1,163,900*l.* in the previous year.

Small Cause Courts. The same complaint cannot be made of the despatch of business in the small cause court. At Bombay the number of suits instituted during the year was 28,811, and of 3,100 that remained undecided at its close only 393 were delayed owing to pressure of work. The value of the property under litigation was about the same as in 1869, viz., 284,461*l.* In the small cause courts of the Mofussil, seven in number, 23,177 suits were instituted in 1870, or 3,900 more than in the previous year; the suits disposed of (21,361) show an increase of 2,544, and their value (126,565*l.*) shows an increase of 17,700*l.*

Sind. With reference to Sind there was a marked increase of business in the court of small causes at Kurrachee; in the other civil courts a considerable increase in the number of suits instituted was accompanied by a marked decrease in their value.

Criminal Justice.—For dealing with crime the regulation districts possess a staff of 469 magistrates of all grades, of whom 355 are native subordinate magistrates. Although the number of offences committed in these districts increased from 39,848 to 45,817, a large proportion were of a petty character; the number of convictions for the more serious offences greatly declined; the number of trials (42,505) was greater by 5,900 than in 1869, and on the whole the year's statistics of crime are stated to be satisfactory. With a larger number of appeals there were not more reversals than usual.

Police. Reckoning the population of the whole province at the figure already mentioned, 13,214,791, including Sind, the total force of regular police, numbering 16,877, was in the proportion of 1 to every 783 persons. The standard of efficiency, as tested by the

proportion of convictions to trials, is not satisfactory, but this is probably due to the large number of frivolous charges laid before the subordinate magistrates. With one exception there is a police school at the head-quarters of each district. The chief magistrate of police for the town and island of Bombay reports, that of 31,917 persons who were brought before the magistrates, being an increase of 4,491 compared with 1869, 16,488 were convicted, 2,468 were acquitted, while the cases of 12,918 were withdrawn. Bombay.

The prison population rose from 18,034 to 19,285, and the daily average from 6,221 to 6,817, the increase being mainly due to exceptional causes in Sind, where prices were high, and the lower classes in some districts found it difficult to gain a livelihood. With the exception again of Sind, the health of the prisoners was good. Schools are now established in all the jails, the teachers being chiefly convicts. Prisons.

Financially there was a very marked improvement in jail administration, the gross expenditure being actually less than in 1869, notwithstanding the largely increased daily average.

Finance.

Revenues and Receipts.	1870-71.	Compared with 1869-70.		Expenditure.	1870-71.	Compared with 1869-70.	
		Increase.	Decrease.			Increase.	Decrease.
	£	£	£		£	£	£
Land Revenue	3,595,895	27,793	—	Refunds and Drawbacks	98,924	—	29,966
				Land Revenue	673,825	—	14,890
Tributes, &c. from Native States	89,581	2,910	—	Forest	62,276	7,796	—
				Excise on Spirits and Drugs	67,327	11,544	—
				Assessed Taxes	5,907	641	—
Forest	116,840	—	6,686	Customs	89,654	1,171	—
				Salt	33,121	—	935
Excise on Spirits and Drugs	445,822	—	1,006	Opium	2,486	—	687
				Stamps	23,176	3,027	—
Assessed Taxes	426,255	181,571	—	Mint	23,135	—	10,872
				Allowances, &c. under Treaties	724,057	22,199	—
Customs	747,468	—	98,596				
Salt	729,962	130,555	—	Total Direct Claims and Demands on Revenues	1,803,888	46,378	57,350
Opium	2,401,195	43,776	—				
Stamps	560,285	93,437	—	Administration	167,732	—	10,006
				Minor Departments	12,240	12,240	—
Mint	16,213	—	63,328	Law and Justice	520,898	19,581	—
				Police	383,315	—	7,555
Law and Justice	85,585	—	29,345	Marine	240,951	—	23,654
				Education	112,062	58	—
Police	17,510	2,043	—	Ecclesiastical	31,506	—	2,092
				Medical Services	127,941	10,033	—
Marine	121,303	—	30,195	Stationery and Printing	38,265	1,735	—
				Political Agencies	121,399	429	—
Education	1,319	—	9,982	Miscellaneous	267,175	133,058	—
				Pensions, &c.	121,165	—	9,570
Interest	79,646	—	10,479	Army	3,122,566	261,474	—
				Allotments for Provincial Services	40,086	40,086	—
Miscellaneous	253,940	6,092	—	Public Works, Ordinary:—			
				Public Works	777,775	—	68,350
Army, Miscellaneous	276,603	—	53,620	Supervision, and Cost of Land for Railways	39,407	7,487	—
				State Railways	—	—	3,831
Public Works, Miscellaneous	28,504	—	90,295	Loss by Exchange	67,093	—	22,446
				Interest on Service Funds, &c.	123,506	34,014	—
Irrigation	2,284	2,284	—	Public Works, Extraordinary	147,208	—	387,251
Railways, Gain by Exchange	101,621	101,621	—				
					8,266,178	566,573	592,105
		592,082	393,532	Surplus	1,831,653	Net Decrease, £25,532	
		Net Increase, £198,550					
Total £	10,097,831				10,097,831		

The fair season and freedom from epidemics were very favourable to the collection of the land revenue, the income from which exceeded that of 1869-70 by 27,800*l.*, and was even higher than the estimate by more than 12,000*l.* The war in Europe was the cause of a large falling off in the imports, and consequently in the Customs revenue of the year. Customs.

The increase of 130,000*l.* in the revenue derived from salt was mainly the result of a very much larger home consumption, a proof that the higher duty imposed in 1869-70, although at first it produced a slight falling off, has not permanently affected the demand. The result of Mr. Peddar's careful inquiries into the working of the salt department of the Presidency was the discovery that smuggling was carried on to the extent of more than 800,000 maunds, entailing a loss to the state of Salt.

	Maunds.
1869-70	3,304,742
1870-71	3,712,214
Increase	407,472

BOMBAY. 145,633*l.* In order to check the continuance of this state of things he recommended—1st, that all seaside salt-works, north of Bassein, should be closed; 2nd, that the manufacture should be concentrated at one place on the Runn; and 3rd, that 14 depôts should be established throughout the Presidency, from which salt should always be supplied wholesale by Government, at a price fixed at each station, according to its distance from the place of manufacture.

OPIUM. Though in 1869–70 there was the enormous increase of 550,000*l.* in the opium revenue, there was no falling off in the year under review, the number of chests on which pass fees were levied having risen from 35,129 to 39,978, of which 38,164 came from Indore and 1,814 from Ahmedabad. The receipts from the excise duty on spirits and drugs was very nearly the same as in 1869–70, but from stamps there was an increase of over 93,000*l.*, about one third of which, it should be stated, is a mere matter of account. The large increase of 116,000*l.* under the head of assessed taxes in 1869–70 was followed by one of over 180,000*l.* in the year under review.

LOCAL FUNDS. Under Act III. of 1869, Government is empowered to levy a cess not exceeding one anna ($1\frac{1}{2}d.$) on every rupee that is assessable to the ordinary land revenue. The money thus raised is for works of local public utility and improvement, its expenditure being administered by local committees consisting partly of official and partly of non-official members. The cess is leviable from all lands in the Presidency, except certain Jaghir lands, and from every farmer of land or sayer revenue. It realized in the year under review 431,688*l.*

PUBLIC WORKS. Good work could be shown for the heavy expenditure of the year on public works. Taking first those of a military character and selecting only the most important, it

MILITARY. appears that the following were completed:—at Kirkee the artillery barracks and

BARRACKS. gunpowder works; at Belgaum, Ahmednuggur, Kurrachee, and Poona, barracks for artillery and infantry. At Kirkee a small arms ammunition factory and a powder magazine were in progress, and at Aden some important works for the improvements

HARBOUR DEFENCE. of its defences. The designs for permanent defence works in the harbour of Bombay being still under discussion, the heavy guns that had been recently received were mounted on temporary works. Good progress was made in setting up the hydraulic lift graving dock at Bombay, and this very important work has since been reported to be complete. It consists of a huge pontoon capable of receiving the largest vessel which the dock can accommodate. To do this, the pontoon is sunk between a double row of iron caissons containing the hydraulic apparatus; the vessel that requires docking is then floated over it, and the pontoon, raised on transverse girders connected by chains with the piers, is lifted with the vessel high and dry out of the water. The pontoon can then be filled with air and floated with its burden, thus permitting, if necessary, another pontoon to be put in position for receiving a second vessel.

CIVIL. Hardly less important of their kind were the civil buildings completed or in progress during the year under review. Of works in the former category may be mentioned the Council Hall at Poona, David Sassoon's Mechanics Institute in Bombay, Government House at Gunnesh Khind, the Lunatic Asylum at Hydrabad, the Civil Hospital at Broach; while in Bombay alone the following important works were still under construction:—the New Secretariat, the Public Works Offices, the Victoria and Albert Museum, the New Post Office, the Native General Hospital.

AGRICULTURAL. In Sattara three important canals were reported complete, and in one division of the Hydrabad collectorate in Sind cultivation was largely increased by the clearance of several others. Throughout the Presidency several tanks and canals were in progress, by far the most important being the Moota Valley project, mentioned in the report for 1868–69, which has for its object the water supply of Poona and the irrigation of a large tract of country by means of a dam thrown across the valley of the river Moota. Several important surveys and projects were completed or under consideration. The Taptee project, at an estimated cost of 440,000*l.* will have 345,000 under command and an area of irrigation estimated at 194,632 acres, and the net return is put down at 15·6 per cent.

COMMUNICATIONS. The districts of Belgaum, Kolhapoor, and Sattara show the largest outlay for improvement of communications.

BRIDGES. Nine bridges on the Arbyle Ghat, three in Khandeish, and one at Ahmedabad were completed, and others were in progress.

BOMBAY HARBOUR WORK. Among the most important public works in progress in this Province are those which have for their object the improvement of the harbour of Bombay. The Elphinstone Company's estate, with its partially developed system of docks, &c., extending over an area of more than 386 acres, was transferred to Government on the 1st May 1870, at a cost of 1,859,000*l.* Its reclamation, which was all but completed during the year under review, has been attended with excellent results from a sanitary

point of view. The further outlay required for the completion of the project is estimated at 780,000*l.* BOMBAY.

There was on the 31st March 1871 a total length of 1,946 miles of railway under the control of the Bombay Government, of which 1,676¼ miles were open to traffic, 104¼ were in progress, and 165½ were under survey. These main lines will eventually be fed by 310 miles of railway belonging to other administrations, the greater portions being in the territories of the Nizam, the Guikowar of Baroda, and the Maharaja Holkar. Ninety-three miles of railway were opened to traffic during the year under review, and 15 more of the Wudwan extension of the Bombay, Baroda, and Central India Railway were opened in May 1871. Railways.

The total number of clergy serving in the diocese was 44, of whom 25 were on the regular establishment. The Bishop of Bombay brought to the notice of Government the necessity for erecting churches at Ahmedabad, Neemuch, and Asseerghur, which are all likely to be used as permanent stations for British troops. Ecclesiastical.

The Public Department of Education in the Bombay Presidency, in addition to administering public instruction in the British districts, undertakes to recommend and encourage it in the native states. Where the latter are under the supervision of political agents our educational system has been generally adopted, and the schools are supervised by the Government educational officers, and in several of the larger native states, in which British officers occupy the position of residents, a move in the same direction has been made. Kolhapoor already has a very complete educational system, and the Rao of Kutch and the Guikowar have agreed to begin the organisation of public instruction in their territories. EDUCATION.

The graduated system of Government and aided colleges and schools, which are under the control of a Director of Public Instruction, assisted by inspectors of divisions, culminates in the University of Bombay, which is an independent examining body. When Government ceased to undertake the entire support of all the public schools and endeavoured to obtain the co-operation of the people in the cause of education, it was soon found that there seldom existed in the village a resident suitable for the office of manager. The plan of raising school rates under a legal enactment was then adopted and has succeeded. This explains why the *aided* schools, especially those of the lower class, are so few in Bombay, and why the grant in aid rules apply chiefly to schools for higher education, of which the managing bodies are mainly missionary societies. Of the 71 aided schools existing in 1870–71, as many as 51 were in the four principal cities, Bombay, Poona, Surat, and Ahmedabad. The total number of Government institutions in existence in 1870–71 was 2,731, comprising 6 colleges of arts, medicine, civil engineering and law; 12 high schools; 46 middle class schools of the first grade and 111 of the second grade; 2,543 lower class schools; 7 colleges and schools for vernacular training; 2 female training schools, and an engineering school for Sind at Hydrabad.

The funds, other than imperial, by which the system is supported are the educational cess or school rate levied from the agricultural population, the fee of schools, interest of endowments, private subscriptions, municipal contributions, and the funds of the native states expended under the supervision of the Department. It is to be noted that the sums derived from these various local sources, amounting during the year under review to more than 119,000*l.*, are considerably in excess of the imperial grant.

With regard to the general course of educational policy, it is stated that new professors are being gradually added to the art colleges, that the high schools, and the schools subsidiary to them, are being strengthened, and that Government having decided upon requiring some amount of self-help in regard to middle class education in the towns of 4,000 inhabitants and upwards (of which the Province contains only 200), the trial which has been made gives promise of greater success than was met with in the villages. For the extension of vernacular instruction it is held that the rate now levied is far from adequate, there being only sufficient funds to provide for the charge of 150,000 children, while there ought to be accommodation for not less than a million. Among the Government schools the increase has taken place chiefly in the lower class, while the corresponding increase of scholars has occurred entirely in the schools of that class or in the training colleges; the second grade middle class schools having especially fallen off in numbers. Including the private institutions, both aided and unaided, the increase in the number of the schools has been 313, and in that of scholars 9,593.

The acquisition of Sanscrit manuscripts is going on with much vigour, 58 having been obtained in 1870–71. The stores of the Deccan appear to be nearly exhausted,

BOMBAY.

but Guzerat is a rich mine of wealth, and the people are more ready than formerly to part with their treasures for a public purpose.

Various endowments have been made during the year, the chief one being the subscription already alluded to as having been raised by the people of the Southern Mahratha country to commemorate the memory of the late Raja of Kolhapoor by founding scholarships for poor deserving students attending the high school of that place. The opening of the Rajkoomar college at Rajkote has also been described in the political section of the report.

Vaccination. The Vaccination Department has been entirely re-organized during the year, and the best results are confidently anticipated from the new arrangements, under which the local funds are charged with the cost of the rural vaccinators, thus enabling the additional superintendents to be paid for by the Government. Little progress is made in the native states, excepting that which is due to the exertions of the British residents; there are, however, 44 vaccinators employed by the chiefs of Kattyawar, and in Pahlunpoor and Mahee Kanta vaccination is appreciated by the people.

Public health. The health of the Island of Bombay was comparatively very good in 1870; the number of deaths was 14,888, the average for the last ten years being 18,325.

Municipalities. The number of the municipalities in the Presidency has risen from 190 to 201, in addition to 40 in Sind; the working of the Municipal Act of 1850 was, however, found to be ineffective, and a Bill was being prepared for its amendment.

Revenue survey. The thirty year leases granted on the institution of the Revenue Survey have already expired in some of the Collectorates, and it is found that an entire revision is required, owing to the rough manner in which the work was carried out; in future, it will only be necessary to increase the assessment by a percentage, without any fresh survey or classification of the land. The improvement in the districts where enquiry has been made is most marked; in Indapúr, one of the least favourable spots, owing to the poorness of the soil and capricious nature of the rainfall, the population is found to have increased 31 per cent. in the last 30 years, bullocks and farming stock 20, ploughs 25, and carts about 300 per cent.; while the value of the permanent works, such as wells, for the improvement of the land, which have been effected by the private capital of the agricultural class, is estimated at about 35,000*l*. The most important change of all, however, is in respect of the occupancy right of land, which had no saleable value whatever when the settlement was introduced, but was, towards the latter part of the lease, readily disposable at from 15 to 17 years' purchase of the assessment. Taking the whole district, the value of this property in the land, which is vested entirely in the cultivator holding under the Government, may be set down at nearly 140,000*l*. Nor has the settlement been unsuccessful for the Government; in the ten years preceding its introduction, the balance realized averaged 4,625*l*.; in the three decades during which it was in force, the collection amounted on the average to 6,522*l*., 7,705*l*., and 8,304*l*., while the remissions averaged but 12*s*. during the last 10 years. Nor is Indapúr exceptional in this respect; in the Madeh talooka in Sholapúr the results have been quite as remarkable, and in fact a similar improvement may be fairly anticipated in all the early settled districts of the Deccan. The rise in the price of grain is an important element in the settlement of the question at what rate the new assessment shall be fixed; in Indapúr an addition of 50 per cent. on the old rates has been fixed, in Madeh the revised rates have added 77 per cent. to the revenues of the district, and the general increase in the earlier settled districts may be assumed at fully 50 per cent.

The settlement work performed by the Revenue Survey Department during the year comprised the application of new rates of assessment to 785 villages, in which the increase on the average collections of the past 10 years, noticeable especially in Sholapúr and North Canara, averaged on the whole 25 per cent., or an annual gain of 32,253*l*. In the last-mentioned district, where the settlement of the revenue showed an increase of no less than 188 per cent., a general combination was made to resist the revision, by litigation in the Civil Court calling in question the right of the Government to introduce a revision. The result can hardly fail to establish the right of the Government to revise the settlement in North Canara as in other adjacent districts. The very high increase in these villages arose from the discovery that the family who owned them, having in former times been the hereditary revenue officers of the sub-division, from which office they were ejected in 1820 for furnishing incorrect accounts, had made the most unsparing use of their official position to forward their own purposes; and fair though moderate rates have now been imposed on lands held by influential persons, while the poorer class have frequently had a considerable reduction from their former assessment.

The detailed survey, on a large scale, of the town and island of Bombay, which was begun in 1865, has been completed after six years' work, at an expense of 28,000*l.*, towards which the Municipality contributed 5,000*l.* Bombay.

During the year under report the system of forest administration has been revised. The net revenue of the department is 51,734*l.*, exclusive of Sind, showing a reduction of 9,261*l.* from the receipts of the previous year, or, allowing for the value of wood in stock, of 1,539*l.* The falling-off in the district of Canara alone exceeded the larger of these sums, and is attributed partly to the generally depressed state of trade, but chiefly to the laxity of the rules in the adjacent province of Mysore, where any one may fell a cartload of squared timber on paying a fee of about 16*s.*, an evil which the Chief Commissioner is endeavouring to check. A steam saw mill has been erected in Canara, which will effect a considerable economy in the disposal of timber. Forests.

By the Act passed in 1863 for the prevention of adulteration of cotton, special inspectors were appointed whose duty was to suppress the use of unlicensed presses for compressing the cotton, and to examine it when offered for compression or sale; during the past season a reduction of three of these inspectors was effected, and the strictest economy rigidly maintained throughout the department. There are four superintendents of cotton experiments, who were sent out from England in 1869, besides one at the model farm in Khandeish; a farm has also been established at Halla in Sind. The area under cotton cultivation has been supplanted by grain and seed crops during the year to the extent of 228,549 acres, representing a loss to the cotton trade of nearly one-third of a million sterling; the decrease, which occurred entirely in the southern division, was mainly owing to the previous year having been unfavourable. In Kattyawar more than a million acres were devoted to cotton, but the condition of agriculture in that province is very backward, and the average out-turn was exceptionally small. The value of cotton shipped from Bombay was 12,787,179*l.*, and from Kurrachee 324,863*l.* The increase in the number of gins worked by steam was 263, occurring entirely in Guzerat; the number of licensed presses worked by hand is 284, and of steam presses 155, showing a diminution of 36 from the last year. Cotton.

No interruption took place during 1869–70 in the working of the Indo-European Telegraph, which is now safely laid along the Mekran coast on a soft bottom, and in depths of from 30 to 50 fathoms of water. The land lines on that coast worked admirably, and this means of communication is highly appreciated by the natives. The net revenue amounted to 54,277*l.*, or 21,953*l.* less than in the preceding year, a decrease partly due to the establishment of the Red Sea line in April 1870, partly to the depressed state of the trade from the European war, but chiefly to the indifferent working of the two main lines which feed this section of the telegraphic communication with India, while nearly three-fourths of the whole traffic went by the Russian route on which the profit to the Indo-European line is considerably less than when the message is sent viâ Turkey. Indo-European telegraph.

Berar (Hyderabad Assigned Districts).

Throughout the length and breadth of the Hyderabad country the year 1870–71 was one of peace and plenty; the rain-fall was copious, and the harvests abundant, and, though sickness was prevalent, there was no outbreak of pestilence. The total revenue was probably not less than 2,395,000*l.*, three-fifths of which were raised by the native Government. Assuming the area of the districts administered by the British officers to have been about 17,400 square miles, and that of the territory under the Minister's management to be 80,000, we find an average of 55*l.* of revenue realised for each square mile under the British, against 18*l.* under the native administration. It must, however, be remembered that the Assigned Districts are the choicest parts of the country, and that broad tracts, which under our rule would be assessed for the benefit of the state, are, under the native Government, alienated as military fiefs of the nobles, or in other private interests. The territory of the Nizam is free from danger of external foes, and during the year no internal intrigues have occasioned disturbance; indeed, scarcely any branch of the administration has lately undergone so much improvement as that of the police. On public works 175,000*l.* was spent in 1870–71 throughout Hyderabad, of which 105,000*l.* was laid out in Berar and the British military stations, and the remainder on roads and other works of utility in the districts under native rule. The sum of 38,886*l.* was devoted to the education of the people, of which Berar received 23,968*l.*; on this point, as well as others, the responsibility of Berar (Hyderabad Assigned Districts).

BERAR. the Government is held in a different view by a native and a British administration, and it is, therefore, not surprising that it becomes necessary in the latter to resort to taxation from which those under the former rule are exempt.

The extreme length of the Assigned Districts is about 150 miles, and their breadth averages 144. Of the total area, about 13,000 square miles are capable of cultivation, of which one fourth is actually taken up, and the remaining 4,000 are useless for that purpose. There is no water-communication in the province; the length of road is about 376 miles, in addition to 166 miles of open railway, the only road which is really serviceable in all seasons. There is but one natural lake, the salt lake of Lunar, and there is an absence of large artificial reservoir; the Province is, however, well supplied with rivers, of which by far the most important is the Wardah. The revenue of Berar has risen from 404,662*l.* in 1861 to 935,888*l.* in 1871, and, notwithstanding the outlay on public works and education in that interval, a balance of 250,000*l.* has been paid to the Nizam since the date of the assignment, as the unexpended revenue of those districts.

With every disposition on the part of successive Residents to give promotion to natives of the Province wherever it is practicable, the process of introducing them into the commission is one requiring very great caution, and one or two appointments to the lower grades have ended in disappointment. The whole body of civil and police officers above the ranks of Tahseeldar and Inspector of Police comprise 2 members of the Civil Service, 18 military officers, 10 European and 2 Eurasians of the Uncovenanted Service, 2 Mahomedans, 3 Parsees, and 4 Hindoos.

Revenue. Fourteen of the twenty districts have been almost entirely measured by the Survey Department, and in three others progress is far advanced, while in 10 the settlement has been completed, comprising 2,752 villages, with an aggregate assessment of 370,743*l.* The total increase of revenue through the operation of the settlement has been 80,000*l.*, of which nearly 21,000*l.* is due to the work of the year under review. The inquiry into the alienated lands, which has been going on since 1864, has now been terminated, and has resulted in a net increase of the annual income by 10,210*l.* The demand for land revenue has increased from 524,853*l.* in 1869–70 to 553,779*l.* in 1870–71, nearly two thirds of the increase being due to extended cultivation.

Legislative. By an order of the Government of India, dated the 30th of September 1870, a defined grade, with corresponding powers, has been assigned to each court of civil jurisdiction in the province, a measure by which the execution, in British territory proper, of decrees obtained in the courts of Berar is facilitated.

Police. One half of the police are natives of the Assigned Districts, the remainder being men brought from beyond the limits of the Province. The high price of labour, strictness of discipline, and superiority of attainments required under the gradually improving judicial system, render it difficult to secure the services of the inhabitants for the police. There was a general decrease of crime during the year to the extent of 22½ per cent., showing that, in the absence of exceptional causes, the police are able to hold the criminal classes fairly under repression. A special body of about 50 constables is maintained, partly at the expense of the railway company, for the protection of their line through Berar.

Judicial. Of the whole number of criminal cases tried during the year, 84½ per cent. were decided by native agency, and only 1½ per cent. of the decisions of subordinate magistrates were made the subject of appeal, while in such cases nearly three fifths of the orders were confirmed. The civil litigation has shown its usual tendency to increase, the number of suits being 13½ per cent. above that preferred in the last year. More than four fifths were suits for debt, and nearly one tenth of the pleas have their origin in cotton speculation. About 24½ per cent. of the decisions were given on the merits of the case, 40 per cent. on confession of judgment, and 21 per cent. on amicable adjustment. Less than 1 per cent. were referred to arbitration, a mode of settlement which is very unpopular, though much of this feeling is perhaps due to the opposition of the professional lawyers. The introduction of the Court Fees Act, reducing the institution fee, diminished the cost of suits by 13 per cent.; it remains to be seen what effect this may have in increasing the amount of litigation. Taking a general review of the work of the judicial officers, it is plain that the tribunals are discharging their functions well, and are resorted to, perhaps only too freely, by all classes, while some improvement seems taking place every year, both in the promptness and in the quality of the decisions.

Registration. The number of documents of all kinds registered during the year rose from 6,767 to 7,188, while there was a large increase in those subject to compulsory registration.

The income of 1870–71, which amounted to 758,764*l.*, gave a surplus of 54,000*l.* over the expenditure, 704,511*l.*, and this was further increased by about 16,500*l.* from

local funds, the receipts from which were 177,123*l.*, to meet a charge of 160,647*l.* Land revenue has risen by 5 per cent., or 23,272*l.*, in consequence of the extension of cultivation; the receipts from the sale of opium have nearly doubled, and the excise revenue has altogether improved by 27,636*l.*; the increase under the head of stamps is 2,609*l.*, and under law and justice 6,591*l.*, due to the sale of court fee stamps. One of the sudden fluctuations to which the customs duty on salt is liable led to the receipt of only 30,500*l.* from salt in 1870–71, as compared with 37,670*l.* in 1869–70. The remaining items of the revenue call for no notice. The charges of the salt department, the establishment for which has been raised, amounted to 9,236*l.* in place of 13,020*l.* in the previous year. In stamps also there is a great diminution from 10,848*l.* to 3,119*l.*, but this is owing to the large sum of 8,774*l.* on account of the expenses from 1861–2 to 1869–70 having been brought to account in the year last mentioned, the true expenditure showing an increase of 1,045*l.* Berar.

The money order system makes satisfactory progress, and the number of currency notes in circulation has more than doubled during the year, in consequence of all the districts being freely supplied with notes, which previously were only issued from the Akolah Treasury.

In addition to the sum of nearly 250,000*l.*, which has been paid to the Nizam on account of the excess of revenue over expenditure from 1861–2 to 1866–7 there is a further balance of 211,392*l.* which has accrued since that date, showing a surplus profit of 460,881*l.* resulting from the management of the Assigned Districts for the ten years that have elapsed since the treaty of 1861.

The total expenditure on public works in 1870–71 amounted to 71,031*l.*, of which 3,816*l.* was contributed by local funds. Several projects for irrigation were investigated during the year, and some give a fair promise, but none were actually undertaken. Progress was made in the construction of numerous roads. Public works.

The opening of the Khamgaon State Railway, connecting that town with the Great Indian Peninsula line, was mentioned in last year's report, but several buildings remained to be constructed at that time. The capital outlay on the 31st of March 1871 was 46,508*l.*, and the cost of maintenance during the year was 1,361*l.*, or 176*l.* per mile, an unusually high charge due to the heavy repairs required in the monsoon, and the effect of running over the line before it was properly consolidated, in consequence of which it was necessary to close it from the middle of July to the end of November 1870. Railways.

The first sod of the Oomrawatee Railway was turned in July 1870, and it was opened for traffic on the 16th of February 1871. It is $5\frac{1}{2}$ miles long, and connects Oomrawatee with Budnairar, a station belonging to the Great Indian Peninsula Railway Company, by which both this line and that to Khamgaon are worked. The capital expenditure on this railway was 39,400*l.*

A survey was carried out in 1870 to ascertain the cost of a railway from the Great Indian Peninsula line to the Wurdah coal fields in East Berar. It was decided by the Government of India that the course of the line should be from the Wurdah station viâ Hingunghât to Wurrora, where coal is known to exist, with a branch crossing the river Wurdah so as to connect the Berar portion of the coal-fields.

One of the principal duties of the forest officers in the Assigned Districts is the conservancy of the remaining tracts where the babool and other acacias, which have as yet escaped from the tide of cultivation, afford almost the only fuel to be obtained. There are, however, three ranges of forest proper, the most important of which comprises the woods on the Gawalgarh Hills, containing at least 11 kinds of valuable timber trees, chief among them being the teak; the bamboo also grows in profusion, and forms an important item of revenue. The expenditure of the department was 2,608*l.* during the year, and about 281 square miles were added to the state reserves, which now contain upwards of 781 square miles altogether. Great care is required in dealing with the Koorkoos, a wild hill tribe, with whose existing customs as little interference as possible is attempted; for their own consumption they are permitted to help themselves to an unlimited supply of all forest produce except the most valuable trees, and though they are required to obtain permission before clearing fresh land for cultivation, no such condition is imposed upon them with respect to lands not actually covered with forest. During the past year the state forests have been allowed complete rest, as their extremely exhausted condition will not for many years warrant any large demands for timber. The working of the department resulted in a net revenue of 9,582*l.*, as contrasted with 8,397*l.* in the preceding year. Forests.

BERAR.

Agriculture.

The two experimental farms at Sheogaon and Oomrawatee have been in full working order; the former comprises 292, the latter 213½ acres. Both are under the charge of European superintendents, who have had some practical acquaintance with farming as well as special instruction at Kew. The primary design of the farms was to stimulate and direct the growth of cotton, but their scope is being gradually extended to agricultural operations generally; sons of native farmers are employed as apprentices, and many of them prove ready learners. One of the most marked peculiarities of native culture is the absence of ploughing, the practice in Berar being to leave the field untouched till a short time before the season for sowing, when a rude kind of harrow is passed once or twice over the land, which is then considered ready for the seed; ploughing was, accordingly, one of the experiments at the Sheogaon Farm, and the result was a crop of 660 lbs. of grain and 2,582 lbs. of straw per acre, in place of 538 of grain and 3,318 of straw yielded by land which had not been ploughed. The English ploughs are highly appreciated by those who have seen them at work, and there was one native ploughman on the farm whose work an English ploughman would find it difficult to surpass. The expenditure on these farms, after deducting the receipts, has been less than 500*l*.

Cotton.

The cultivated area of the provinces is reckoned at 4,703,618 acres, of which 1,517,873 acres are sown with cotton. In the year 1870–71, there were 209,265 bales exported from Berar, an increase of 19 per cent. over the export of the last year, notwithstanding a marked fall in the price of the staple; and it is equally satisfactory to observe that three-fourths of the cotton was sent in bales fully pressed before quitting the district. There are 18 presses in operation in the province, of which all but two are worked by steam power, and a proposition has been made to utilise them, in the idle season, in pressing cotton-seed with a view to the preparation of oil and oil-cake. The experiments at Sheogaon and Oomrawatee showed that, with deep ploughing and manuring, an acre of land might be made to yield from 150 to 186 lbs. of cleaned cotton, while the average outturn in Berar never exceeds 100 lbs. Cotton grown in Berar from Hingunghât seed has been found superior to the produce of Hingunghât itself, but, as in former seasons, the cultivation of exotic cotton has proved a complete failure.

Prices.

With the single exception of oil seeds, which show a slight increase, the price of all produce has fallen during the year 1870–71. Cotton, which in 1869–70 averaged about 58 shillings per 80 lbs., was in 1870–71 worth only about 30*s*. 3*d*. Wheat fell from 8*s*. 7*d*. to 6*s*. 6½*d*., grain from 10*s*. 1*d*. to 6*s*. 2*d*., rice from 13*s*. 0½*d*. to 8*s*. 5*d*., and tobacco from 33*s*. 6*d*. to 25*s*. 6*d*. A bullock, which in the former year cost 7*l*. 16*s*. 9½*d*., was to be bought in the latter year for 4*l*. 17*s*. 9½*d*., and a buffalo fetched only 3*l*. 18*s*. 4*d*., instead of 6*l*. 13*s*. 6*d*. Wages have at the same time slightly decreased, skilled labour having in 1869–70 fetched from 1*s*. 7½*d*. to 2*s*. a day and unskilled 7½*d*., whereas in 1870–71 they commanded only 1*s*. 7½*d*. and 6½*d*. respectively. This fall was accelerated by a remarkable immigration of upwards of 28,000 persons from Nagpore into Berar, while a large number of handicraftsmen also entered the province from Northern India.

Mines.

Hæmatite iron ore has been discovered in the Tanak hills to the south of Woon, in beds from 9 to 17 feet in thickness, and containing from 53 to 68 per cent. of iron. It is, however, chiefly in the Wurdah coal field that the mineral wealth of Berar consists; at Pisgaon coal was struck at a depth of 77 feet, of good quality, and in a seam 30 feet in thickness.

Trade.

The imports for 1869–70 may be reckoned, as an approximation, at 3,674,442*l*., and the exports at 3,604,599*l*.; but it is found impossible to make any comparison with previous years, owing to a want of accuracy in the earlier returns.

Ecclesiastical.

There is one Government chaplain in Berar, whose head-quarters are at Ellichpur, while another is posted at Aurungabad, the chief station of the Hyderabad Contingent. There is a mission under an ordained native pastor in the Buldana district.

Education.

The total receipts for education amounted to 34,559*l*., and the expenditure to 31,930*l*. There were 344 Government institutions, and 110 unaided indigenous schools, giving 1 school to every 38 miles of territory, or to 4,915 of the population. As in 1869–70, there are 2 high and 44 middle class schools; the number of lower class schools has increased from 267 to 270, and that of girls schools from 25 to 27, while the normal school at Akolah remains as before. The number of indigenous schools shows an increase of 17. There was a falling off of about 5 per cent. in the number of pupils; their absence, which is sometimes caused by cotton-

picking, being more frequently attributed to the influence of the marriage customs; thus, a boy who has been married a year or two previously is invited to spend a week or month with the parents of his bride, and takes with him his younger brothers and sisters; or he is performing his own marriage ceremony, which is attended by many of his friends; or the mother is invited to a marriage in a neighbouring village, and takes at any rate her younger children with her. With such social institutions it would be very impolitic to interfere, but it may be hoped that in time the educated scholars will themselves introduce salutary reforms. The standard of education thought necessary by some of the agriculturists was illustrated during the year by one villager, who took his son away from the school as soon as he could count up to 25, because, he said, that was the largest number of cows he would ever have to count.

A weekly vernacular newspaper, called the Satiya Prakash, or Light of Truth, is published at Oomrawatee, but it belongs to the very humblest rank of journalism.

Health.

A decided advance has been made during the year in the way of sanitary improvement, and the registration of vital statistics; in most of the towns attention is now systematically bestowed on the preservation of the water supply from pollution, the sweeping and watering of the streets, the planting of trees, the regulation of fairs and markets, the care of slaughtering-places, and on sanitary matters generally.

Hospitals.

The three previously existing civil hospitals have continued to render aid to the people, and the number of charitable dispensaries has increased from 17 to 20, while that of the patients has more than doubled, an indication of the growing appreciation by the people of the benefits of European medical treatment. The proportion of those who received treatment was about 1 to 85 of the population.

Hyderabad Subsidiary Force.

The origin and position of the Hyderabad Subsidiary Force was fully described in the last report, and there is little to remark on it in 1870–71, except that in every measure proposed for its welfare the cordial co-operation of the Nizam's Government was as conspicuous as ever. The station of Secunderabad was healthy on the whole, though, just after the conclusion of the year, a mysterious, though not very virulent, outbreak of cholera occurred in the barracks occupied by the 18th Hussars; a careful inquiry was ordered into its history and origin. The jail at Secunderabad is remarkably healthy, and not a single death occurred among the convicts during the year.

Besides the regimental schools and orphanage for the children of British soldiers, there are in the station 53 schools with 1,443 scholars, of whom 113 are girls; nine-tenths of these schools are maintained without any assistance from the Government.

Hyderabad Contingent.

The cost of the Hyderabad Contingent, charged against the revenues of Berar, was 327,370*l.* No occasion arose during the year for the employment of any portion of it on active service.

The outlay from imperial revenues on public works for the benefit of the Hyderabad force was 39,269*l.*, which was chiefly spent in military buildings and fortifications at Trimulgherry. The principal civil work was the construction of a new telegraph office within the residency grounds.

Nizam's state railway.

The state railway belonging to the Nizam, the project for which was mentioned in the report for 1869–70, was carefully surveyed, and the plans were discussed with the Hyderabad Government, but it was not till quite the close of the year that the work was commenced, along some 70 miles of the line.

Residency Bàzàrs.

The densely peopled bàzàrs which surround the British residency on three sides contain 12,000 or 13,000 inhabitants, who are in no sense British subjects, but, by the courtesy of the Nizam's Government, have long been placed under British jurisdiction. They form on the whole a very orderly community, and they have a magistrate of their own to look after their affairs, namely, the second assistant resident. In the vicinity of Hyderabad, there is also a very respectable Eurasian society, many of whom hold good posts in the administration. Altogether the administration of the residency bàzàrs, during the year under review, was conducted with much credit to the British power.

Judicial Superintendent of Railways.

A British officer, termed the Judicial Superintendent of Railways, whose headquarters are at Gulburga on the western frontier of Hyderabad, is specially appointed for the protection of the Great Indian Peninsular railway line throughout the Nizam's territory. He has a police force of 84 men, paid partly by the native Government and partly by the railway company. The arrangement worked well and smoothly during the year.

Mysore.

Mysore.

Mysore was taken under British management in 1834, in consequence of the misrule that prevailed under the late Maharaja, and will continue so during the minority of his son and successor Chámarájéndra Wadiyer Bahadúr. This young prince is being carefully brought up under Colonel Malleson, and gives good promise. The province is an elevated tableland 230 miles long and 190 broad, surrounded on all sides by the Madras Presidency, except on the north, where a portion of it touches Bombay. The recent settlements show the area to be larger than was anticipated, and it probably does not fall far short of 30,000 square miles, of which rather less than one-third is cultivated, and of the remainder not more than one-fifth is culturable. None of the rivers are suitable for navigation, but the roads, which are for the most part supported from local funds, aggregate 2,857 miles in length.

Mr. Bowring, C.S.I., the late Commissioner, resigned his appointment during the year under review, and was succeeded by Colonel R. J. Meade. The administrative divisions are the three divisions of Nandidroog, Ashtagram, and Nagar, which are sub-divided into 8 districts and 83 talooks, corresponding with the tahsils of Northern India. The population is estimated at 4,273,544, or 144 to the square mile, of whom over four millions are Hindús, and 200,000 are Mussalmáns. The season was a favourable one, and the year's harvest generally most luxuriant, so much so, that the agricultural classes in some instances suffered actual loss, while none realized the high prices to which late years had accustomed them.

Revenue. The revenue for the year under all heads amounted to 1,060,000*l.*, or about 10,000*l.* less than in 1869–70, and the expenditure to 1,021,500*l.*, the result being a surplus of

Land. receipts over expenditure of 38,500*l.* From the land the realizations were nearly 730,000*l.* A revenue survey and settlement of all land held under Government was commenced in 1863–64, and was estimated to require 20 years to complete. Twenty-four talooks out of the 83 had been taken in hand when the report was written, and the settlement of eight had been fully carried out. The tenure in force may be divided into—(1) sarkár, or Government lands and (2) inam lands. The latter were granted before the assumption of the country, and vary considerably, some of the land being held rent free, some at half the ordinary assessment, some on a permanent light assessment in consideration of services rendered in the construction or maintenance of tanks, and so on. A commission was appointed in 1866 for the investigation and settlement of the numerous inàm holdings in the Province, the three points of investigation being—(1) grants or endowments towards the support of religious or charitable institutions, (2) personal or subsistence grants, (3) grants made by former governments for services no longer required.

Abkari. Abkari, or excise on spirits, &c., reached 101,410*l.*, the highest amount yet obtained.

Forests. The forests are a valuable source of revenue to Mysore, covering an area of 428 miles. They are under the charge of a special department, which, during the year, was engaged in forming sandal wood reserves, and fuel plantations for the railway. The

Judicial. net receipts under this head were nearly 26,000*l.* There were at the close of the year 128 tribunals for the disposal of criminal, civil, and revenue cases in the Province; of the officers who presided over them 20 were Europeans and 165 were natives.

The criminal returns show an increase of 2,313 offences, or 12·7 per cent. as compared with the previous year, the total number being 20,473, of which 93·64 per cent. were brought to trial during the year. The per-centage of persons convicted to those acquitted was 29·36, as compared with 33·63 in 1869, and 38·64 in 1868.

There was a still larger increase in the number of civil suits, which were 22 per cent. in excess of those instituted in 1869, the number being 20,534. This increase is attributed to the introduction, in July 1870, of the Courts Fees Act, by which the cost of suits was considerably lessened. The working of the courts was satisfactory, and there was a decrease in the number of appeals.

Prisons. The Province possessed 8 jails and 85 lock-ups. The daily average (1,619) was less by 176 than in 1869, and the expenditure amounted to 15,836*l.*

Police. In the Bangalore district the police have been reorganised on the Madras system, but in the remaining districts they remain on the old system. In the former the police number 1,011 of all ranks, or in the proportion of 1 to 652 persons and 2·50 square miles, in the latter they number 5,865, or 1 to 588 persons and 5 square miles. There was, in addition, a force of village police, numbering 14,000 persons, who are, however, said to be most inefficient.

Military. The military local force is composed of 6 regiments of Sillédar horse numbering 2,146

officers and men, and 40 regiments of infantry numbering 2,443 of all ranks. The total cost of the force was 111,113*l.* MYSORE.

The expenditure on all kinds of public works was 167,597*l.*, of which 21,212*l.* was contributed by local funds. The repair and future maintenance of the vast network of tanks which are spread over the country and had been allowed to fall into a dangerous condition was the most important work that occupied the attention of the Public Works Department during the year. A scheme for a railway also from Mysore to Bangalore, for the development of the resources of the province, was prepared and submitted to the Home Government for approval. The Secretary of State, allowing the desirability of the scheme, was of opinion that the proper repair of the tanks was even more necessary for the welfare of Mysore, and that unless the funds of the state were sufficient for carrying out the two works together, the latter should have the precedence. The matter therefore ended in the postponement of the construction of the railway. Public works.

The roads in Mysore are of two kinds—(1) those maintained from the general revenue, and known as imperial roads, (2) those made and repaired from local funds, and designated "plough tax" roads. The condition of the roads generally throughout the Province was very satisfactory. Roads.

As much as 90 per cent. of the whole cultivated area was sown with food grains, Rági occupying 53·50 per cent., rice 25 per cent., and grain and other grains 12·57 per cent. Coffee is grown chiefly in the western talooks of the Nagar division and of the Hassan district of Ashtagram. There was a slight increase in the area sown with it, and the season was favourable for the crop. Little cotton is grown; the ryots consider it to be unremunerative, and become more indifferent to its culture in proportion as they become more dependent on foreign markets for their supply of cloth. Agriculture.

	1869–70. Acres.	1870–71. Acres.
Food grains -	4,355,637	4,685,600
Coffee - -	110,931	111,987
Mulberry -	11,854	15,523

Prices continued to fall; in one district (Hassan) they fell so low as 40 per cent. below those of the year 1869–70. The rates of skilled labour varied according to the locality from 9*d.* to 1*s.* 6*d.* a day, and of unskilled labour from 3*d.* to 7½*d.* a day. With extended cultivation of the mulberry there was a recorded increase in the outturn, amounting to 1,094 maunds. The manufacture of silk is carried on to a considerable extent throughout the province, and its value in 1870–71 was estimated at 55,560*l.* No organised system having been introduced for the registration of trade, the statistics given need not be quoted. Produce. Labour. Silk.

The Educational Department has the control of 464 Government institutions, 76 grant-in-aid schools, and 1,903 unaided indigenous schools, amounting in all to 2,443. Compared with 1869–70 these figures represent a decrease of two in the number of grant-in-aid institutions, and on the other hand an increase of 11 lower class Government vernacular schools, and of 86 Hóbli schools. The number of pupils was 43,307 against 38,960 in 1869–70. The prejudices against female education are passing away, and on the whole the progress and prospects of education are said to be very encouraging. Education.

The existing hospitals and dispensaries, nine in number, did good work, relieving 76,540 persons, or 4,000 more than in 1869–70, but they were quite insufficient for the wants of the province. There are, in addition, a lunatic asylum and an asylum for lepers at Bangalore. Hospitals, &c.

Municipalities have been organised in most of the chief towns, and boards formed consisting of the most influential European and native members of the community. Municipalities.

The funds necessary for the sanitary and other works which these boards control are obtained chiefly from octroi duties levied on articles selected by them.

COORG.

The little state of Coorg, which forms part of the charge of the Commissioner of Mysore, has an area which has recently been ascertained to be about 1,214 square miles or 770,000 acres, of which 176,733 were under cultivation. Coorg is divided into 6 talooks, and these again into 24 náds, containing an average of 67 square miles. The population numbers about 112,000 persons, of whom the greater part are Hindus. COORG.

The progress of the district during the year was, on the whole, satisfactory, and the condition of the people generally prosperous.

The crops, though they ripened late, were on the whole good. The borer insect had not ceased to be destructive to the coffee plantations. The prospects, however, of those estates which had survived its ravages were encouraging, and the out-turn of the year was decidedly above the average. Of a total of 77,390 acres assessed as coffee plantations, 32,631 acres were actually cultivated during the year.

Coorg. The total receipts of the year were 54,486*l.*, or 12,000*l.* more than in 1869-70, and the expenditure, which amounted to 52,224*l.*, was about 6,000*l.* less. The land revenue realised 23,903*l.*, and Abkari 13,190*l.*, an increase of 4,351*l.* There was a slight increase in the number of offences committed during the year, but only in those of a minor character. The working of the Judicial Department was satisfactory. In the civil courts 1,339 suits were disposed of against 1,082 in 1869.

There were 34 schools, which gave instruction to 2,015 pupils, or about 1 in 88 of the population.

Rajpootana.

Rajpootana. The season of 1870–71 was not so favourable as entirely to remove all traces from Rajpootana of the famine which devastated the country two years before. After heavy falls of rain early in the year the showers suddenly ceased before the middle of August, and though Bhurtpoor and the eastern part of Rajpootana were fortunate, many parts of the country had not a drop of rain after that period.

On the 22nd of October 1870 the Viceroy held a durbar at Ajmere, which was attended by the Maharana of Oodeypoor, the Maharajas of Jodhpoor, Boondee, Kotah, Kishenghur, and Jhallawar, the Nawab of Tonk, and the Rajah of Shahpoora. In the course of his address, which contained assurances of security mingled with salutary advice respecting their own duties, his Excellency mentioned the project which he had at heart, of the establishment of a college for the education of the sons of the chiefs and leading thakoors. The speech made a deep impression on the minds of the assembly, and subscriptions were immediately promised, the list of which by the end of the year amounted to 73,600*l.*, subsequently reduced to 63,100*l.* by the refund of the donations of three chiefs who were excused for various reasons. This sum forms a noble endowment for the Mayo College, where the boys are to be educated free of expense, excepting for their personal attendants, food, and horses.

As an instance of the excellence of the roads which are now to be found in Rajpootana, it is mentioned that in a single day the Viceroy's party traversed the distance of 112 miles between Bhurtpoor and Jeypoor, over a portion of the magnificent road which is in course of construction between Agra and Ahmedabad. At Jeypoor the Maharaja celebrated the visit of the Governor-General to his capital by determining to build a large hospital, of which his Excellency laid the first stone.

Meywar or Oodeypoor. Turning to the separate states of Rajpootana, the first which attracts attention is Meywar, the revenue of which in 1870–71 amounted to 268,676*l.*, while the expenditure was 273,032*l.*, showing a small deficit of 4,356*l.* The opium scales at Oodeypoor, which were established in June 1869, proved a success, the number of chests which passed them having been only 444 in that year and 4,468 in 1870. Much of the opium from Kotah and Jhalra Patun is brought to Oodeypoor on account of its comparative propinquity to the railway at Ahmedabad; this route is also more free from petty taxes, though some of the Meywar sirdars levy transit duties, notwithstanding the prohibition of the Government. A regular criminal court was established at Oodeypoor during the year, and disposed of 860 cases; the measure was, however, most distasteful to the sirdars, and even led to the minister's resignation. The dispensaries of Meywar worked most beneficially, 6,893 patients being treated during the year; but vaccination makes little progress beyond the city and its immediate neighbourhood. The final payment of the 18,000*l.* has been made by the Durbar for the Meywar portion of the important road between Neemuch and Nusseerabad, which will form the main military and commercial route from Central India and Malwa to Guzerat. The Maharana is a loyal, intelligent, and enlightened ruler, but shackled by the prejudices of those about him, which he cannot ignore.

Pertabghur. The little state of Pertabghur, described as the gem of Meywar, has a revenue of 28,900*l.*, and pays a tribute of 5,689*l.* to Holkar. The Maharawul is very intelligent and active, and is the only one of the chiefs who thoroughly attends to his police arrangements, which are excellent. His chief fault is extravagance, but he is beloved by the people.

Doongurpoor. The Maharawul of Doongurpoor, who takes great interest in improving his state, has lately repaired the city at a cost of from 2,500*l.* to 3,000*l.* The arrangements for the civil and criminal administration have hitherto worked well.

Jeypoor. The administration of the Maharaja of Jeypoor was marked by the anxious painstaking spirit which characterises him. The council is described as being all that could be desired, regular in its meeting and prompt in the performance of work; but it is feared that unless invested with greater power, to confer which the Maharaja is averse on the ground that the people are not advanced enough for greater liberty, it will fail

to accomplish all that was anticipated at its formation. This decision is to be regretted as it is impossible for a strong man, far less for one in the Maharaja's health, to control the affairs of every department in so large a state. Good results might be expected from the recent appointment of committees of the council for the introduction of an improved criminal and civil procedure code, and for the improvement of the finances by the control of expenditure and submission of reliable returns. The necessity for the first was apparent to the political agent, and is proved by the amount of fees levied by the civil courts having fallen in eight years 80 per cent. The programme of the finance sub-committee is stated to be excellent, but to carry out its recommendations a firm person will be required to whom the Maharaja should on all occasions give unqualified support. Trade showed some improvement, the disproportion between the imports (643,500*l.*) and the exports (375,500*l.*) being due to the large imports of grain to meet the recent scarcity, and to the inexactness with which export of precious stones and jewels is registered. The resources of the considerable portion of Jeypoor territory lying between Kerowlee and Tonk are very imperfectly developed, the system of management being a vicious one and the population much below what the country could support. The people, nevertheless, are evidently lightly assessed and have every appearance of prosperity. RAJPOOTANA. Trade.

The general health of the Jeypoor territory was good, and the increased number of patients treated at the dispensaries shows a growing appreciation of those valuable institutions. Six branch dispensaries were established during the year by the Maharaja. Vaccination makes progress with the disappearance of the popular prejudice against it. The organisation of the jail was excellent. The number of pupils borne on the rolls of the Jeypoor College was 432 against 389 in the preceding year, and the school of arts is equally flourishing. The able prime minister, Nawab Mahomed Faiz Ali Khan Bahadoor, received, in recognition of his services, the decoration of the Order of the Star of India at the hands of the Maharaja, to whom the pleasing duty was deputed by the late Lord Mayo. The progress of some of the petty states subject to Jeypoor must now receive a brief notice.

At Ulwur the political agent had commenced his difficult task of rescuing the state from the gross misrule of the chief, which had resulted in anarchy and open warfare. By his accessibility, firmness, and straightforward character he had managed to keep the administration together and instill courage into the members of the council, who, without his aid, would have been paralysed by the constant intrigues of the enemies of order. A liberal allowance of 18,000*l.* a year has been set apart for the Maharaja Rao's personal expenses. Ulwur.

The measures adopted by the British resident and the government of the Maharaja of Jeypoor for the reform of the administration of Shekhawattee had been eminently successful, the Maharaja himself being sincerely anxious for the attainment of reform. Dacoity and highway robberies, once so rife, had suffered a very perceptible check, and the number of ordinary crimes had greatly diminished. Shekhawattee.

The prompt recognition by Jeypore of the adopted son of the late Raja, on the death of the latter at the close of 1870, had an excellent effect throughout Khetree, and there seemed every reason to hope that the young Raja's reign would afford a pleasant contrast to that of his predecessor. The revenue of Khetree was estimated at 45,000*l.*, and the revised expenditure amounting to 28,800*l.* only, there remained a surplus of 16,200*l.* to go towards liquidating a state debt of 77,500*l.* Khetree.

The revenue of Seekur amounted, in 1870–71, to 24,000*l.* During the minority of the Raja the country is administered by a regency of three able and zealous ministers, to whose labours the marked contentment and loyalty of the people bears ample evidence. Seekur.

Kishenghur thrives under the judicious administration of the Maharaja, Pirthee Sing. By a liberal expenditure on irrigation works he has reclaimed much waste land and materially increased his revenues. To the same reason is attributable the excess during 1870–71 of expenditure (24,021*l.*) over income (17,027*l.*). The State is well provided with schools, and the example of the Maharaja in bestowing a liberal education on his sons cannot fail to be productive of good. Kishenghur

The political agent at Marwar reported the traces of the famine of 1868 to be still "apparent in a wasted population, deserted villages, scant tillage, and the want of "cattle for agricultural and commercial purposes; and that years must elapse and "a better government ensue before we can hope to see Marwar recover even its "former prosperity." The average rainfall of Marwar is only five inches, and the construction of storage reservoirs is an imperative necessity. Unfortunately the history of the administration is unrelieved by a single bright feature. The promises of the Maharaja remain unfulfilled. The Dewan, obtaining no support from his master, Jodhpoor or Marwar.

RAJPOOTANA.

endeavours to carry out the wishes of the political agent and to gain the approbation of the British Government, and thereby increases his unpopularity at a native court which expects its servants to look to it only. Highway robbery is rife, and the Maharaja either cannot or will not adopt preventive measures.

Boondee. The rule of the Maharao Raja of Boondee is strict, but the people are contented and happy, because he is just. This chief, an old man, is estimable in all his relations in life, and is a fine specimen of an independent ruler of the patriarchal type. His visit to Ajmere and the Viceroy's speech seem to have made a greater impression upon him than on any other chief. Hearing and seeing that the policy of progress was for the good of the country, he accepted it with frankness, and there is little doubt but that he will act up to his convictions. The state of the finances of Boondee is most creditable. A very careful supervision is exercised, and so correct is the Maharao in all his dealings that he can obtain at six per cent. any sum he wishes.

Kotah. The condition of the Kotah State is the cause of much anxiety. The Maharao, though well-intentioned, is a victim to drink, and perfectly indifferent to the interests of his State. The ministers are corrupt and incapable; crime is compounded, and prevalent everywhere, and the state of the people is described as deplorable. The income of the State cannot be less than 240,000*l.*

Tonk. At Tonk the installation of the young Nawab was carried out by Colonel Brooke with considerable display, in order to shew the people in a marked manner the determination of the British Government to support the ruling Chief, and the uselessness of the intrigues entered into by members of the family for the return to power of the ex-Nawab. The young Nawab is intelligent, and gives his earnest attention to his duties. At his own suggestion a road is being constructed, which, passing through Tonk, will connect Deolee and Jeypoor. When the railway between Agra and Ajmere is also completed the prosperity of Tonk will doubtless receive a considerable impulse. At present the people of Tonk compared with those of the other Rajpootana capitals appear to be poor.

Bhurtpoor. The Maharaja of Bhurtpoor is of active habits. He looks minutely into and superintends the affairs of his State, and is careful in his expenditure. The condition of the country as recently made over to its chief is contrasted with its condition 16 years before, when, owing to the minority of the present Maharaja, it fell under British superintendence. The average income has increased from 200,000*l.* to 260,000*l.*; the administration has been purified; a revenue survey has been completed, and a settlement made with the ryots, while the cesses have been reduced and simplified, and advances without interest are now made to cultivators. Many new wells have consequently been constructed, and the land revenue has risen from 140,000*l.* to 165,000*l.* Not the least of the benefits derived by the State from British supervision are the public works, the sanitation and drainage of the city, the development of a system of irrigation, the construction of new tanks and of an excellent system of roads, and numerous buildings.

Kerowlee. At Kerowlee, Jey Sing Pal was installed Maharaja. He is very careful, and anxious for his State to be free of debt.

Dholepore. Great praise is due to the Rana of Dholepore for consenting, at the instigation of Colonel Brooke, to forego all transit duties on merchandise passing, through his territories, along the Trunk Road to Gwalior. This liberal measure will entail a considerable sacrifice of revenue, and is an instance of his sincere desire to meet the wishes of the British Government in every way.

Bickaneer. The condition of Bickaneer is almost as bad as it is possible to be. The ascertained debts of the State amount to 98,300*l.*, nearly all of which was incurred for the support of an army to overawe turbulent thakoors. The thakoors and other grantees hold 1,416 villages, from which they derive a revenue of 97,000*l.*, and pay to the State 23,300*l.*; leaving only 368 belonging to the Raj, which yield a revenue of 19,360*l.* Of the 18 ministers who have held office in the last 19 years only one obtained even a name for justice. The present minister, Pundit Munphool, C.S.I., is a man of high character, but he does not possess the confidence of the Maharaja. There is no real justice administered in Bickaneer. No regular courts exist, but the minister succeeded in disposing of some important cases. The Maharaja, though loyal to Government, is despotic and vacillating, and he is entirely guided by favourites.

CENTRAL INDIA.

Central Indian Agency. The native States in Central India, which are superintended by the Central India Agency, cover an area of 84,000 square miles, with a population of nearly eight millions, yielding a revenue to the Chiefs which probably does not fall far short of

4,000,000*l.* The most important of these rulers are the great Mahratha houses of Sindia and Holkar.

Sindia.

The territory of the former covers an area about the size of Ireland, with a revenue exceeding a million, and a population of $2\frac{3}{4}$ millions; he is free from debt, and his expenditure falls short of his income by some 30 per cent. In his dominions in Malwa the ryots are prosperous, under the graduated settlement made in 1860 on an average of a long series of years, in accordance with which they were to pay fixed rates for 20 years, the amount levied in the first decade being raised during the second half of the period. Rich as are Sindia's possessions in Malwa, there is a great capacity for development, scores of square miles still lying waste for want of population to cultivate them; Oojein, however, is said to have received an increase of 14,000 inhabitants in the last eighteen months. There is a growing tendency in Sindia to treat his Rajpoot subjects with forbearance, and much of the contentment and present prosperity of Malwa may be attributed to the good tact and common sense of Ram Rao, the Sir Soobah of the province. The revenue settlement of the Northern district has been lately under the Maharajah's consideration, and it is believed that the ryotwarree system is to be tried experimentally. The adopted son of the Maharaja, who is 20 years old, has been sent to the Deccan College at Poona; his natural son, Bulwunt Rao, who is 17 years of age, is being brought up at the Presidency school of Indore. The negotiations for the exchange of territory were at length completed, by the payment to Sindia of a sum of 11,911*l.* by the British Government; and it only remained to include the transaction in a formal treaty.

Holkar.

A less favourable account must unfortunately be given of the conduct of Maharajah Holkar towards his subjects. For years past efforts have been persistently made by him to depart from the engagements entered into fifty years ago with the Rajpoot thakoors; and his encroachments on their lands need to be checked by a distinct announcement that the British Government will permit no departure from the principle on which it gave its guarantee to the relations existing between the Chiefs and their tributaries and subjects, for there is scarcely a house or bazaar in Rajpootana or Central India which is not alive to the sufferings of their clansmen in Indore. Meantime Holkar's revenue has risen from less than 50,000*l.* in 1817 to 550,000*l.* in 1871, fully 200,000*l.* of which increase has taken place within the last five or six years; the highest price of grain is made the basis of the revenue system, so that the Government is continually being pressed to grant remissions, and the whole population is on the strain; while, as a crowning point, the levy of "Sirdeshmookee" has been lately introduced, by which an additional tax of 7 per cent. on all rent, revenue, customs, or transit dues is exacted. In Holkar's districts under the Deputy Bheel Agency, the transit dues are levied to a vexatious extent on all internal or intermediate traffic; they are in the hands of contractors, who show no mercy to travellers.

Bhopal.

The late Secunder Begum of Bhopal effected a radical reform in the revenue administration of that State. The lands were measured and classified; those actually under cultivation were assessed according to the soil, and those still lying waste were given free for five years, after which a gradually increasing assessment was imposed. The present Begum attends to the affairs of the State, and vigorously aids in the suppression of the robber-bands. Great improvements have been effected in the city of Bhopal. Her Highness is very desirous that her daughter, the Sultan Jehan, who is quick and intelligent, should acquire a thorough knowledge of the English language.

Dewass.

Affairs have for years been in an embarrassed state with the senior branch of Dewass. The Raja, a poor lad who was adopted by the late Chief, succeeded to wealth and power at the age of 19, ousting the Ranee and minister who during his minority had managed the State since the death of the old Raja in 1860. In four years he has contrived to bring about a state of bankruptcy, and he has now been obliged to apply to the Governor General's agent for assistance in the liquidation of his debts. Sindia, whose daughter he married, is anxious to save the State from the direct supervision of the British Government, and is willing to give substantial aid if we will so far mediate as to bind the Raja to adhere to the arrangement which may be adopted. The debts probably exceed 60,000*l.*, and the revenue, which has been mortgaged, is not increasing.

The junior branch of Dewass is as remarkable for the order of its administration, under the Agent's supervision, as the elder branch is for the reverse. The revenue is steadily increasing; there is an invested balance of 20,000*l.*, and local improvements have not been neglected. The young Chief, who is 11 years old, is being educated at Indore, and is an apt and willing pupil.

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The total area under the two branches of Dewass is 2,500 square miles, with 150,000 inhabitants, and a revenue of 60,000*l.*

Baglee. Baglee is a small State of 300 square miles, with a revenue of 7,000*l.*, and 17,000 inhabitants; much of the district is wild and unhealthy, but cultivation is on the increase, and it is satisfactorily managed by the minister. The young Chief daily attends the Residency school at Indore, and gives good promise.

Rajghur. The Chief of Rajghur is quite estranged from his family in consequence of his having embraced the Mahomedan religion, a measure which has caused deep irritation among his Hindoo subjects.

Rewah The Maharajah of Rewah possesses a splendid palace, standing in a miserable collection of hovels; a type of the condition of the State. Many of the nobles are wealthier than petty Chiefs elsewhere, while the cultivators are generally poor, and there is little trade. The Chief is, however, anxious to develope the resources of his country, and is willing to pay the cost of any measures of progress which meet with the approval of the British Government, and a political agent having been appointed to reside there, many improvements in the administration are anticipated. The area of Rewah is not far short of 20,000 square miles, and its capabilities are enormous; the population is about 190,000.

Sohawul. Sohawul, which 26 years ago was taken under British management burdened with debt and full of disorder, has been restored to the Chief free of debt and with a small balance. The young ruler is described as having some strength of character, which will need to be exercised in dealing with the claims of his family.

Kotee. The chief of Kotee is fairly intelligent and well disposed; the remission of transit dues has lately been carried out in this estate.

Nagode. The old Chief of Nagode is intelligent and loyal, and did good service during the mutiny, but he is very superstitious and his waste of money on the Brahmins and their expensive rites leaves him seldom free from debt.

Myhere. The young Raja of Myhere is doing well, and managing his State with intelligence, and everything betokens care and kindliness. The good feeling shown in the remission of transit dues, and large cessions of land for the railway, has been recognised by the Government of India.

Tehree. Tehree is the chief State in Bundelcund; it covers an area of 2,100 square miles, and has 200,000 inhabitants. The Maharaja, who is about 24 years old, is hardly strong enough to deal with his unruly barons, who have outgrown their estates, and no longer find them sufficient for their maintenance. During the year there was a disposition on their part to show hostility to the Chief, but the agent was able to effect a reconciliation. Some improvement has taken place in the general administration; roads have been made, a school-house is being built, a dispensary has been opened, and the town is being better laid out and drained.

Duttia. During the minority of the Chief of Duttia many improvements were introduced into the administration, but now it sorely suffers from the lethargy and neglect which he has shown since his accession to power 7 or 8 years ago, and there is much discontent in the State. It has a population of 180,000, and a revenue of from 50,000*l.* to 60,000*l.*, but it has fallen into debt through careless management. Improvements have been made during the year in municipal arrangements in the town of Duttia, and the streets have been widened.

Sumpthur. Sumpthur is a little estate under the management of the elder son of the Chief, who has long been insane. It contains 175 square miles and a population of 30,000, and the revenue exceeds 40,000*l.* The Regent is earnest in his duty, but has difficulties to contend with in the intrigues of the Ranee, who favours her younger son.

Chirkharee. The services of the late Chief of Chirkharee during the mutiny will long be remembered. During the minority of his son, who is now about 19, two able ministers have managed the State, which, with an area of 800 square miles and a population of 120,000 inhabitants, has a revenue not far short of 50,000*l.*, and is in capital order, with fair husbandry, and good roads and schools. The young Chief is quick, and very desirous to feel his power.

Punnah. The State of Punnah, an excellent example of what a native State may become under a careful government, had the misfortune of losing its enlightened ruler, Nirput Sing, on the 8th of June 1870. When he succeeded in 1849 it was in utter darkness and mis-rule; his first act was to abolish suttee; he made good roads, improved cultivation, paid great attention to the breeding of cattle, maintained model farms, worked his diamond mines with great success, introduced broad streets, good houses, schools, and offices into the capital, and at his death left the country conspicuous for

its order and contentment. He was as careful in the training of his children as in everything else, and the eldest of his four sons, about 22 years of age, is no unworthy successor to his father.

Adjighur

Adjighur has an area of 340 square miles, in the midst of a wild country; its inhabitants number 46,000, and the revenue is nominally 20,000*l*. The chief, now about 25 years old, succeeded to the rule three years ago, under circumstances of difficulty; but, though somewhat reckless in expenditure as well as in the means of getting money, he has held his position and seems likely to do fairly well, and has already made some progress in clearing off the debt with which he found the State encumbered.

Bijawur

Bijawur suffered intensely from the famine, and the administration languishes for want of firmness in the ruler, who is somewhat eccentric.

Chutterpoor

The late Chief of Chutterpoor died shortly after he attained his majority, and the present Maharaja is a child. The excellent arrangements commenced under the former management will be perfected by the present superintendent, with the political agent's support. The area of the State is 1,240 square miles, with 170,000 inhabitants; the revenue, which has been much reduced from the disorder caused by bands of outlaws, may be estimated at 30,000*l*. The State is steadily recovering from the effects of the recent famine.

Jowra

The affairs of Joura are excellently administered, the debt has been paid, and the State is clear. The minister is full of energy; wells and tanks have been constructed, and waste land brought under cultivation. Three new schools have been opened. The Nawab, who is under the tuition of an English officer, is intelligent and well meaning, and fond of field sports.

Rutlam

The financial condition of Rutlam is satisfactory; the population has increased, and crime diminished. The land settlement has been completed on a footing which is advantageous both to the state and the people; two more girls schools have been opened; and the sanitary arrangements of the city of Rutlam call forth the highest praise. The able superintendent, Meer Shahamut Ali, has been recently rewarded by being nominated a Companion of the Star of India. The young Chief shows intelligence and good promise.

Seetamhow

Seetamhow has long been weighted by the heavy tribute payable to Sindia, who a few years ago permitted its reduction from 6,000*l*. to 5,500*l*. per annum. The total revenue of the State is but about 15,000*l*., and there is a debt exceeding 10,000*l*.

Sillana

No improvement is discernible in the affairs of Sillana, the Chief of which is sunk in debauchery, and it is feared that fresh debts are being incurred as fast as old ones are paid off.

Jhalra Patun

Jhalra Patun is admirably managed; the people are peaceful and prosperous, and the ruler is everywhere praised.

Neemuch

The peace of the country round Neemuch was imperilled by a lawless tribe named the Mogheas, who have become so daring that the guards on the Agra and Bombay Road have had to be strengthened.

Dhar

In Dhar the administration was retarded by the sickness of the Chief, who still insisted on keeping all control in his own hands. There was a surplus of income over expenditure exceeding 4,900*l*., and there is a balance of 77,000*l*. in hand, of which 50,650*l*. is invested in Government securities.

Jhabooah

The Chief of Jhabooah has fair abilities, and is willing to listen to advice, but is easily led into extravagance. Finding the management of affairs beyond his power, the able minister resigned, but the Chief is anxious to retain his services. The administration of justice has been satisfactory.

Alee Rajpoor

The late Chief of Alee Rajpoor has been succeeded by his brother, who has been warned against the intrigues which wrecked the State under his predecessor, but he has ceased to take interest in public affairs. The people are prosperous under the new settlement, which is lighter than in neighbouring states; the revenue has risen during the year from 12,515*l*. to 16,154*l*.; the expenditure was 8,023*l*., including a large sum for public works, and 4,954*l*. was applied to the liquidation of debt, leaving the amount outstanding 7,987*l*. The administration of justice was good, and education is progressing. High praise is awarded to the superintendent, Nuzzuf Khan, who, surrounded by enemies and difficulties, continues to administer the government with honesty, energy, and ability.

Amjhera

The district of Amjhera, which was conferred on Sindia after the mutiny, was parcelled out by him among the servants whom he wished to reward. They reside at Gwalior, the agents only try how much they can remit, and the country is im-

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poverished by absenteeism. Sindia's local officers have little authority; the original Rajpoot thakoors are oppressed, and new and irritating demands are made upon them; their resistance is met by having soldiers quartered on them, and they have appealed to the British agent for protection which it is doubtful if we can give.

Burwanee. Much of the country in Burwanee has fallen into a state of desolation, owing to the growth of malarious jungle; but it is proposed to open the district by the construction of roads. The Rana has somewhat improved in conduct, and has had a portion of the state business entrusted to him. The revenue is flourishing, and the expenditure well within the estimates.

Goona. In Goona a new land settlement of the Gwalior districts for 10 years is being made; the late assessments were far too heavy, and it is feared that little relief will be obtained in the fresh arrangement.

Revenue system. Throughout Malwa the patriarchal village system of collecting the revenue prevails; the lump sum being fixed as the value of the village, the farmer takes it on that rental for a certain period, and all the surplus profit goes to him and not to the cultivator. Excepting Gwalior, Rutlam is the only state in which the ryot is entitled to the proceeds of his holding after paying a fixed rent. The levy of cesses in kind is dying out. An important contribution to the resources of the Chief is derived from the nuzzurana or succession tax, payable on the succession of a Chief, the birth or marriage of his heir, or any other extraordinary occasion of expense, and also on the succession of a landholder to his own estate.

Judicial administration. Great difficulty is found in the political agents' courts in obtaining the attendance of witnesses from the several states, and hence many suits were delayed for what would otherwise have appeared to be an undue period. The statement of criminal justice shows a great decrease of crime.

The judicial system of Gwalior is theoretically good, the power of appeal from the decisions of one court to a higher being secured to the people in every stage; owing, however, to the low pay and irregular appointment of those by whom it is administered, this multiplication of appeals merely occasions increased expense. In Indore there is an utter absence of courts and codes; the revenue collector, the only civil officer in the district, disposes of civil and criminal cases according to discretion, and the Maharaja, who has long been without a minister of trust or ability, is the sole arbiter in all appeals on civil, criminal, or revenue matters.

Opium. The habit of opium-eating is now almost universal in Rajpootana and Central India. In 1820 the ordinary value of opium land was 4 shillings the beegah,* but within 20 years from that date it had quadrupled, and now it will command from 20 to 100 shillings, while in many places even that price is exceeded. In 1870–71 the quantity of opium exported to China was 37,608 chests, realizing a revenue of 2,256,480*l.*, and probably not less than 20,000 chests were consumed in the country, while the cost of the Government establishment maintained for the collection of the revenue in Malwa was more than covered by the value of the stamps on the passes.

So long as the free cultivation of the poppy is prohibited in India, its culture in the native States will increase, since no produce is so remunerative to the Chief or the grower; and it is computed that there are now 900,000 beegahs of the best land devoted to it, to the exclusion of the food supplies of the people, the want of which, despite the wealth of the country, must occasion anxiety, until the railway, by piercing the country, shall bring grain within their reach. With the growth or sale of this drug in native territory the British Government has nothing whatever to do; the cultivator and trader sell to whom they like, and, after paying the duty, the owner receives a pass authorising him to remove the chest when and where he pleases. Recently permission has been given to Sindia to provide an establishment within his own territory for weighing the opium intended for export; and during the last year 12,643 chests were brought to scale at Oojein, an old city which had become almost deserted but is now fast recovering its former importance. Scales are also established at Oodeypoor. The opium warehouse at Indore, and the road and bridge to it, have been completed during the year, their cost being defrayed by a cess of one rupee levied on each chest weighed at that place.

Public works. The grant for public works in Central India, during the year 1870–71, was upwards of 220,000*l.*, of which 81,000*l.* was absorbed in the construction of original military works at the cantonments of Mhow, Morar, Gwalior Fortress, Nowgong, Indore, and Augur, all situated in native states. There were 1,124 miles of road either under con-

* *Note.*—The beegah is a variable measure, in Malwa slightly exceeding half an acre.

struction or complete. The survey was finished for the railway which is to connect Indore with the Great Indian Peninsula line at Khundwa; and another was commenced for the continuation of that railway beyond Indore to Neemuch. CENTRAL INDIA.

The arrangements of the Lushkur jail in Gwalior are still very deficient. At Augur a new jail has been opened, which is far superior to the one hitherto used, but the establishment seems insufficient for the security of the prisoners. The one at Indore is in perfect order. The new jail at Nowgong was completed during the year. Jails.

The number of schools under the Central India Agency has more than doubled during the year; in 1869–70 there were 31, with an average daily attendance of 1,280 scholars; in 1870–71 there were 69, with an average of 2,550 pupils. This includes 44 schools in the native States of Bundelcund. The high school at Jehore in Bhopal and the residency school at Indore are in a thriving condition. In the Gwalior territory, the number of pupils attending the different schools has increased from 2,690 to 3,024 during the year; there is, however, a want of encouragement from the Durbar, and the standard of requirements to obtain employment is very low. Education.

The Lieutenant-Governor of the North-western Provinces having invited the attention of the Chiefs of Bundelcund to the proposal for establishing a university at Allahabad, subscriptions towards the work were forwarded by them to the amount of 2,206*l.*; it is, however, a question worthy of consideration whether a high school in Bundelcund would not be better attended by their children.

The schools of the Central India Horse at Augur and Goona, and of the Malwa Bheel Corps at Sirdarpoor, are valuable and well attended.

The Indore Residency Hospital was daily crowded with patients, Dr. Beaumont's fame, especially as an operator in diseases of the eye, being spread throughout Central India. Hospitals.

There was an increase of 7,240 in the admissions to the dispensaries of Bhopal, Malwa, and Gwalior, but a considerable falling off in the number of cases of vaccination, except in Bundelcund, where the operations were nearly trebled in number.

The topographical survey of Bundelcund was completed during the year, an area of 2,198 square miles having been surveyed. The Rewah topographical survey is also complete. A geological survey has been carried on in West Bundelcund for two years, and iron has been found and worked. Survey.

India Office,
1872.

W. NEVILLE STURT.

Trel. Saunders, Geog. India Office, London, 1872.

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA,

DURING THE YEAR 1871-72.

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)

Ordered to be printed 29th July 1873.

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PREFACE.

In the Act of Parliament constituting the Secretary of State and Council of India, it is provided that an account of the state of Indian finances shall be presented to Parliament within 14 days, during which Parliament may be sitting, next after the 1st May; and that "such account shall be accompanied by a statement prepared from detailed reports from each Presidency and District in India, in such form as shall exhibit the moral and material progress and condition of India in each such Presidency."

From 1858 to 1865 the voluminous administration reports, prepared by the several Governments since 1854, were presented to Parliament, in the form in which they arrived from India, without arrangement or condensation. It was found that this way of complying with the requirements of the Act failed to secure the objects contemplated by the framers of the clause, which were, that a report on the progress of India should be annually furnished in a convenient and manageable form, supplying all necessary information, and adapted for future reference. It was, therefore, determined that, in future, statements should be prepared at the India Office, based on the administration reports and other information received from India, but in a conveniently condensed form.

The first statement of this kind was for the year 1864-65. The subject was treated under the different departmental heads of revenue, finance, public works, legislation, judicature and police, education, emigration, agriculture, sanitary measures, municipalities, ecclesiastical establishments, native states, army, marine, and miscellaneous. The same arrangement was followed in the statements for 1865-66 and 1866-67, though the subjects were not treated exactly in the same order, and some additional headings were introduced. But in 1867-68 a different arrangement was adopted, and continued in the statements for 1868-69, 1869-70 and 1870-71. Instead of treating the subject under the several departmental heads, a general account was given of the proceedings of each local government, and various miscellaneous matters and events were recorded in an introductory section. In two out of the three last statements, outline maps have been given, showing the political divisions and boundaries of each local government to face the eight different headings.

The present statement has been arranged on a different plan. It has been thought that the most useful form that such a document can take, is one by which an inquirer may obtain, by the perusal of one section, a general but correct knowledge of what has taken place during the year under review, in connection with any subject in which he may be interested. A knowledge is required, not so much of the general proceedings of the different local governments, as of the progress that has been made throughout British India in improving the condition of the people, and in providing for their moral and material wants. In commencing a new series, it has been found necessary, in treating of subjects such as land revenue, irrigation, and some others, to give a concise account of the previous history of administrative measures connected with them, so that, during the perusal of future statements similarly arranged, there may be ready means of reference to a fuller account of any measure or undertaking, the yearly progress of which may be recorded. The present plan provides a place for every subject or section of a subject, and so long as it is closely adhered to in future statements, the progress under any given head may be traced through the different years without any trouble.

The whole subject of the moral and material progress and condition of India is arranged in 15 sections, each treating of a department of administration which is complete in itself, and under one or other of these heads every measure and every event will naturally find its place. The full details of the arrangement will be seen from the accompanying Analytical Table of Contents, which has been inserted for facility of reference.

The statement itself is, to a certain degree, based on the Administration Reports issued by the different provinces. In the case of financial statistics, the figures given in the Parliamentary Paper entitled Finance and Revenue Accounts of the Government of India for the year 1871–72, have been strictly adhered to; and in trade statistics the figures shown in the annual statements of trade and navigation, compiled in the different presidencies, have been adopted.

The same orthography of proper names has been adopted as is now sanctioned by the Government of India. Those who advocate different systems of spelling will never agree, but no one can doubt the serious inconvenience of many different ways of spelling the same word. Dr. Hunter's system of orthography is based upon that of Sir William Jones. It has been adopted by the Supreme Government, in legislation, in maps by the Superintendent of the Great Trigonometrical Survey, in the Post Office Guides, in the Telegraph Department, in the almanacs, and by several newspapers, as well as by the Punjab and Bombay Governments. It is thus making its way into general use. It has always been the system in use by the Asiatic and other learned Societies. Its adoption for the new Gazetteers has received the sanction of the Secretary of State in Council. It is, therefore, adhered to as closely as possible in the present statement.*

An attempt has been made to illustrate some of the subjects by the use of a map of India of convenient size repeated as often as may be required, according to the subject to be illustrated. A forest map shows the reserved and unreserved forests and the plantations, as well as the localities where the principal timber trees grow. One map, to illustrate the irrigation section, is tinted so as to show the amount of rainfall over the various zones, and the irrigation works themselves are shown on three maps on a larger scale. The map showing communications gives the lines of railway and electric telegraph, the different harbours and the lighthouses. Another map gives the political boundaries of native and border states, and another shows the distribution of troops. Plans showing Karáchi Harbour, the Pamban Passage, and Calcutta and Bombay Harbour defences, are also given. The Trigonometrical and the Geological Surveys of India are also illustrated.

CLEMENTS R. MARKHAM.

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*Dr. Hunter's rules are as follows:—

Short *a* (as in the second syllable of *tartan*) to be expressed by *a*.
„ *u* (as in *but*) also to be expressed by *a*.
Long *a* (as in the first syllable of *tartan*) to be expressed by *á*.
„ *a* (as in *say*) to be expressed by *e*.
u or *oo* (as in *food*) to be expressed by *ú*.
i (as in *fit*) to be expressed by *i*.
i or *ee* (as in *police* or *meet*) to be expressed by *í*.
i (as in *ride*) to be expressed by *ai*.
ow or *ou* (as in *crowd* or *cloud*) to be expressed by *au*.

All names which have acquired an absolute fixity of spelling, from historical or popular usage, such as Calcutta, or Bombay, are to be left untouched; except that when such names end in *nagor*, *nagore*, or *nuggur*, the termination *nagar* is to be uniformly used, and *pur* is always to be adhered to in place of *pore* or *poor*.

The rule of the Great Trigonometrical Survey is as follows:—

"Rules for pronouncing Indian proper names: *a* has a variable sound, as in woman, rural, paltry; *á* as in tartan; *i* as in clique; *í* as in ravine; *u* as in bull; *ú* as in rural; *o* as in note; *e* as *a* in say; *au* as *ou* in cloud; *ai* as *i* in ride; *g* as in gong; abad as ábád; bazar as bázár. Exceptions to spelling by rule are indicated thus *Calcutta, *Calicut, &c."

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THE PRESIDENCIES AND SUBORDINATE GOVERNMENTS OF INDIA

DISTINGUISHING THE TERRITORIES under BRITISH & NATIVE ADMINISTRATION.

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

DURING THE YEAR 1871-72.

I.—ADMINISTRATION AND LEGISLATION.

Year 1871-72.

THE year 1871-72 was the last in the administrations of the late Governor General, and of the Governors of both the minor Presidencies. A record of its events, therefore, forms the concluding chapter of Lord Mayo's administration, while it is an introduction to that of Lord Northbrook.

Death of Lord Mayo.

In the autumn of 1871, Lord Mayo had made a tour through part of the Punjab, and in January 1872 he proceeded on his fatal voyage to Rangún and the Andaman Islands. The assassination of this able and popular Viceroy was a great calamity; and the social grief and feeling of public loss, in Calcutta and throughout India, were overwhelming. His murderer was a mountaineer, of a bloody race, from the Khaibar country, who was actuated merely by his own savage passion for revenge on those who had punished him for his crimes. There is no trace whatever of his having received any communication from India, or of his having been in any degree a political tool; and his act was probably unprompted by religious feeling. Thus, Lord Mayo fell while in the performance of a dangerous duty, as a general might fall in battle under a chance shot. The crime was devoid of all political significance.

Arrival of Lord Northbrook, Lord Hobart, and Sir P. Wodehouse.

Lord Napier, the Governor of Madras, proceeded to Calcutta to assume the office of Governor General on the 19th of February 1872; and Lord Northbrook arrived at Calcutta on the 3rd of May. Lord Mayo presided over the affairs of India during the whole of the year under review, except the last two months; Lord Napier was Governor of Madras during the same period, and Sir Seymour Fitzgerald was Governor of Bombay. Lord Hobart assumed the governorship of Madras on 15th May, and Sir Philip Wodehouse that of Bombay on 7th May 1872. Thus, the new rulers of all three Presidencies commenced their periods of office in the same month of the same year, a coincidence that has never before occurred in the history of British India.

Lieutenant Governors and Commissioners.

On the other hand, 1871-72 is the first year of the administration of Mr. (now Sir George) Campbell, the Lieutenant Governor of Bengal, who succeeded Sir William Grey on 1st March 1871; and of Mr. R. H. Davies, the Lieutenant Governor of the Punjab, the melancholy accident which caused the death of Sir Henry Durand having taken place on the 31st December 1870. Sir William Muir became Lieutenant Governor of the North West Provinces on the 7th March 1868. Colonel Keatinge was Acting Commissioner of the Central Provinces during 1871-72; and Sir George Couper, Sir W. Merewether, and Mr. Eden, of Oudh, Sind, and British Burma.

Legislation.

The Legislative Council of the Governor General passed 21 Acts, the most important of which were the Act to amend the law regulating advances of

I. ADMINISTRATION AND LEGISLATION.

money by Government for agricultural improvements, and the Indian Evidence Act. Four Acts were also passed with special reference to the administration of the Punjab. By a Resolution of the Government, dated 14th December 1870, which will be more fully referred to in another section, the independent administration of certain branches of expenditure was left to the local governments, and Acts XVIII. and XX. of 1871 enable the Lieutenant Governors of the North West Provinces and the Punjab to levy rates on land, not exceeding five per cent. in the former territory, and about three per cent. in the latter, on the annual value of an estate, the funds so raised to be spent in the districts which provide them, under the direction of local committees. Act XXX. of 1871 was passed for the regulation of drainage, irrigation, and navigation in the Punjab. One of its main features was a clause authorising, under certain conditions, the imposition of a water rate on lands near canals, which were irrigable but not irrigated. This clause was, however, disallowed by the Secretary of State. Act XXXIII. of 1871 consolidates and defines the law relating to the settlement and collection of land revenue in the Punjab; and Act IV. of 1872 removes a mass of regulations and orders which are no longer necessary, or which have been superseded by later Acts. Act XXIV. of 1871 prohibits municipalities from borrowing, except with the sanction of the Government, but enables them to apply to local governments for a loan, by pledging the proceeds of any rate or tax they may be entitled to levy, as security for payment. Act XXVII., for the registration of criminal tribes, will be noticed in the section on police.

Bengal legislation. The Legislative Council of the Bengal Government has been very active, and the Lieutenant Governor bears testimony to its success and usefulness. It is composed partly of official and partly of non-official members; but there is no one upon it who directly represents the feelings and interests of the lower classes. Besides numerous enactments for the improvement of Calcutta, it passed an Act for taking the census, a district road cess Act, and an Act to protect the Jagannath pilgrims, and to appoint a health officer at Puri, whose duty it will be to enforce sanitary regulations when great masses of pilgrims are assembled.

Madras legislation. The Madras Legislative Council passed two Acts, one to enable Government to levy an excise duty on salt, and another for the protection of the Madras pier. A Bill was also introduced for the better regulation of the police.

Bombay legislation. Five Acts were passed by the Bombay Legislative Council, having reference to the affairs of the city municipality.

Department of revenue, agriculture, and commerce. The most useful administrative measure introduced by Lord Mayo during the year 1871-72 was the creation of a new department in the Government of India to deal with all subjects connected with revenue, agriculture, and commerce. The want of such a department had been the direct cause of much loss and waste, and of numerous mistakes in times past, in consequence of the special subjects belonging to it being scattered in various departments, and not being considered as any one's business. Yet these very subjects are the most important with which the Government has to deal. On the wise and judicious treatment of them absolutely depends the material welfare of the people, and the fruitfulness of the various branches of the revenue. Lord Mayo and the majority of his Council felt that more systematic measures should be taken for securing the improvement and development of the agriculture, commerce, and industrial arts of India; and that closer attention should be given to the great products which constitute the staples of agricultural and manufacturing industry and of export trade. Agriculture, in India, is susceptible of almost indefinite improvement; while the future development of Indian commerce depends on the quantity and quality of existing staples, and on the introduction of new products. Scientific knowledge of agriculture has, at present, no existence in India. The cultivation of the quinine-yielding chinchona plant, of cotton, coffee, tea, indigo, rhea, and jute fibres, and other products, needs the intelligent and watchful care of a central department; as do all measures for improving the breeds of horses and cattle, for introducing new products, for regulating fisheries, and for promoting agricultural instruction. Lord Mayo's Government, therefore, came to the conclusion that a separate department should be formed for the care of these great interests, and to take cognizance of all matters affecting the practical improvement and development of the agricultural

I. ADMINISTRATION AND LEGISLATION.

agricultural resources of the country, and the administration of the land revenue, the forests, commerce, mines, surveys, and industrial arts.

Department sanctioned by the Secretary of State.

Lord Mayo's proposal was favourably received by the Home Government. The Secretary of State considered that the Finance Minister should be a minister of control only, separated from the actual administration of any branch of the revenue. He thought that the work of the new department would increase as the natural result of special attention being devoted to many branches of administration which had hitherto been more or less neglected. It was anticipated that the local governments would, as a rule, originate improvements and reforms, and that the new department would make the valuable experience, locally gained, subservient to the interests and welfare of the whole empire. Formerly great attention was paid to audit, to trifling retrenchment, and to clipping; now the far wider and more important duty of watching the sources and development of the revenue, and of ascertaining how it may be increased, and how best the welfare of the people may be promoted, will also receive its due share of attention.

Constitution of new department.

The Department of Revenue, Agriculture, and Commerce was constituted by a Resolution of the Government of India, dated 6th June 1871, and Mr. A. O. Hume, C.B., was appointed its first secretary. It has charge of all questions relating to land revenue and settlements, to Government advances for works of agricultural improvement, to agriculture and horticulture, to studs and cattle breeding, to silks and fibres, to forests, to commerce and trade, to customs, salt, opium, excise, and stamps, and to industrial arts. The department also has under its charge the census, the gazetteers and collection of statistics, and the surveys, including geology and meteorology. Its establishment has only entailed an additional expenditure of under 2,000*l.* a year, and its usefulness has already become apparent. Subjects of vital importance to the people of India that were formerly neglected, or treated in separate departments, which was almost worse, will now receive constant and careful attention and supervision. Lord Mayo hoped and expected that in due time the local governments would form similar departments for the same purposes, and that this wise and statesmanlike measure would thus bear fruit. On the 29th of December 1871 Mr. H. Rivett Carnac, who had previously been Cotton Commissioner in the Central Provinces, was attached to the new department of revenue, agriculture, and commerce, as "Commissioner of Cotton and Commerce with the Government of India." It was considered desirable that the duty of collecting and arranging on a systematic plan the statistics of the trade of British India, and of reporting thereon, should be entrusted to a single officer; he will be supplied by the railway officials and the local governments with all the traffic and trade returns that can be made available.

Commissioner of Cotton and Commerce.

Statistical survey.

In close connection with the new department is the Statistical Survey of India, of which Dr. W. W. Hunter was appointed Director General in October 1871. The object of Dr. Hunter's appointment is to introduce systematic arrangements for collecting accurate statistical material, to act as a central guiding authority to the local collectors of information, to take steps to ensure uniformity in their operations, and hereafter to consolidate provincial reports in a general gazetteer of India.

Dr. Hunter.

Dr. Hunter's work on Orissa forms the first fruit of the statistical survey, which is the largest of the kind that any single government has ever yet attempted. It deals with a population exceeding 240,000,000, split up into 50 different races, speaking a great variety of languages, and representing very diverse stages of human society. But Dr. Hunter succeeds to a vast accumulation of materials collected during the last 100 years. The Court of Directors encouraged researches into their territories, and between 1807 and 1813 they expended 30,000*l.* on a statistical examination of part of Bengal alone. But there has hitherto been no central organization for bringing such local researches to a common focus. Materials are buried in different offices, unavailable either to the public or to the Government. The survey of Bengal, just alluded to, was stored away in the India House in 50 folio volumes of maps and manuscripts without being touched. Dr. Hunter's first duty has been to collate and utilize already existing materials, and to supplement their deficiencies. His plan is to distribute the work as much as possible, and at the same time to secure uniformity and punctuality in the results by means of a central editor.

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A set of leading questions has been issued by the Director General showing exactly what is required, and reducing the work of the local officers to the minimum. The returns will gather together all the essential characteristics of the empire, district by district, exhibiting them in a skeleton form; but nevertheless in a form which under skilful treatment may be clothed with life and human interest.

Final work of statistical survey.

The final operation of the statistical survey will be to work up the whole, and to compile a connected account of each district from the returns. These provincial accounts will be condensed by the Director General into an Imperial Statistical Account of India.

Results of statistical survey.

This survey forms an epoch in the history of statistical enterprises, and its practical results will be most important. Until the Government knows more about the real facts of the country, and the actual condition and requirements of its inhabitants, it will never obtain more than a half success in its efforts to render the people happier and more prosperous.

Orthography of Native Names.

The Government of India, with the approval of the Secretary of State, has adopted a uniform system of orthography for the purposes of the statistical survey, and for official use generally. The system is based on that of Sir William Jones, but a certain freedom is allowed in spelling names which have become familiar to the public, and Dr. Hunter has himself prepared a guide to the orthography of Indian proper names, as an illustration of the principles sanctioned. An official list of towns, geographical divisions, and natural features, such as rivers, mountains, &c., is in course of preparation.

Two administrative measures of Lord Mayo.

Thus the two great administrative measures of the last year of Lord Mayo's Government were the formation of a department of revenue, agriculture, and commerce under Mr. Hume, and of a statistical survey of India under Dr. Hunter.

Administrative reform in Bengal.

The Lieutenant Governor of Bengal has also been very active in re-organizing the administrative machinery of his provinces. He found no reliable, or even approximately reliable, information available regarding the area of land under cultivation, the prevailing rent rates, the area sown with different crops, which districts produce more grain than they consume, which hoard grain, which export it. He felt that, in case of famine, he could not tell whence the deficiencies of the famine tract could be best supplied. He saw the necessity for governing more actively, for a change from a less seeking of information to a greater seeking of information; and he maintained that it was the duty of an administrator to obtain and classify detailed information, and not merely to set up courts of justice, keep the peace, and dispose of matters which force themselves on the attention of Government.

Bengal Board of Revenue.

His first changes were in the procedure of the Board of Revenue. Formerly the Board disposed of land revenue and other questions. Sir George Campbell ordered that they should all be submitted to him for final sanction. Instead of the two members sitting as a Board as heretofore, he placed one in separate charge of land revenue, and the other of salt, opium, customs, excise, income tax, and stamps; and he considers that the efficiency of the executive administration has been much improved by the arrangement. Another great reform has been the reduction of the enormous quantity of reports and returns which used to be sent in by heads of departments. Each head is now ordered to analyze and digest the returns into one, and in that form to submit them to the Government.

Bengal magistrate-collectors.

Sir George Campbell has also made a change in the districts, by concentrating more power in the hands of the magistrate-collectors. He has been anxious to give them a stronger controlling power over all the departments in their districts, for he holds that departments are excellent servants but bad masters. The collector will thus be the real executive chief and administrator, over every one and everything except the proceedings of courts of justice. Thus the police have been made more entirely subordinate to the magistrates, the gaols have been placed under their general control, as well as the public works. In most parts of India, except Bengal, there is a native executive establishment which is extremely useful in many ways, under an officer called a tahsildar in the Upper Provinces, and a mamlutdar in Bombay. These officers see to the assessment and expenditure of local rates, look after the excise, manage sequestered estates, arrange for the passage of troops, carry out local works and repairs, and obtain statistics.

statistics. Sir George Campbell is desirous of giving some such executive establishment to the district officers in Bengal. He would institute a native civil service on a wider basis, and thus supply a want which, in his opinion, impairs the efficiency of administration in the Lower Provinces.

Municipal institutions, in India, were, in their present form, the creation of our Government, and are quite distinct from the old village communities. Municipalities were first formed for the three presidency towns. In Calcutta the municipality consists of the justices and a chairman named by Government. Its expenditure amounts to 250,000 *l.*, and the taxation is levied in the form of lighting, police, water, and general rates on all owners and occupiers, besides license fees for carriages, horses, and carts, and license tax on trades and professions. The Calcutta municipality already has a debt of 1,400,000 *l.*, and a sinking fund for paying off the loans. Great improvements have been effected, especially as regards drainage and water supply. In Madras the receipts of the municipality are 57,134 *l.*, and there is a debt of 101,957 *l.*, being money borrowed for completing the water supply project. The municipal funds are applied to education, hospitals, vaccination, and other objects of public utility, and on experiments to utilize sewage for agricultural purposes, which have been very successful. In the town of Bombay there was to be a general revision of the assessment in 1872, which has not been made since 1866. The expenditure was 379,760 *l.* for 1871, being an excess over the receipts, and the means of meeting it, and of restoring what was due to the sinking fund for repayment of loans, were supplied by a loan of 150,000 *l.* The survey of the town of Bombay has been completed.

Municipalities.

Calcutta.

Madras.

Bombay.

Except in the presidency towns, municipal institutions only date from 1850. It is true that an Act was passed in 1842 empowering inhabitants of towns to form municipalities, but it proved ineffectual for the purpose, and the existing municipal institutions are based on Acts XXVI. of 1850, XX. of 1856, and VI. of 1868.

Municipal institutions.

If the people of a town expressed a desire to that effect, the Government was empowered to order Act XXVI. of 1850 to be put in force. A certain number of inhabitants were then appointed as Commissioners for defining the taxes to be raised for the purposes of the Act, for applying them in payment of officers and servants, for the execution of works for the improvement of the town, and for other expenses. This Act is now in force in very few places. Act XX. of 1856 was passed for the maintenance of police chaukidars, and may have effect in every town to which the local government may extend it by notification. The magistrate is then to determine the number of police to be maintained, and the sum to be annually raised, which is to be either an assessment according to the property of the persons liable, or a rate on houses and grounds not exceeding five per cent. of their annual value. In each town brought under the provisions of the Act, the magistrate is to appoint a punchâyat or committee, consisting of three or five inhabitants, whose duties are to apportion the rate; but the police are appointed by the magistrate. The surplus, after paying the wages of the police, may be devoted to the purposes of cleaning or lighting the town, or to other improvements. Act VI. of 1868 may be extended, by Government notification, to any town, when the provisions of Act XXVI. of 1850, and XX. of 1856 are to cease to have effect. The police rate is fixed at *Rs.* 1. 8. a year for each house; and the municipal tax is limited to *Rs.* 2. 4. for each house. The proceeds are to constitute a town fund, under the control of the magistrate. This fund is to be applied to the support of the police, construction and maintenance of roads, the general improvement of the town, vaccination, and dispensaries. A town committee is to be formed of not less than five inhabitants, and, if necessary, subordinate ward committees. These committees are to be nominated by the magistrate unless orders are given for their appointment in some other way, and one-third are to be officials; they are empowered to elect their own chairman, and a third of the members are to retire each year. Their duties are to consult and advise with the magistrate on the assessment and expenditure of the town funds. If the Government appoints the magistrate to be the chairman of a town committee it becomes a corporation, and the committee itself receives magisterial powers. In the Punjab, Act XXVI. of 1850 has ceased to be operative, and all municipalities are under Act XV. of 1867, renewed

Act XXVI. of 1850.

Act XX. of 1856.

Act VI. of 1868.

Act XV. of 1867.

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newed by Act II. of 1872. By it, the towns where it is in force are administered by a committee which must consist of five members, but which is invariably much larger. These committees are divided into three classes, with graduated powers of expenditure; those of the first class expending the town funds on objects authorised by the Act, without a control beyond a Government audit of accounts; those of the second class only expending sums without sanction, up to 200 *l.*, while all proceedings of those of the third class are subject to confirmation.

Application of Municipal Acts.

These Acts, it will be seen, render municipal institutions compulsory, when the Government sees fit to introduce them into any town. The Act VI. of 1868 applies to large cities, the older Act, XXVI. of 1850, to smaller towns, and Act XX. of 1856, called the Chaukidari Act, to groups of villages and very small towns.

Municipalities in Bengal.

Excluding Calcutta, the municipal taxation in Bengal amounts to 110,000 *l.* The complaint chiefly is that power is too much monopolised by the magistrate, and that municipalities have not sufficient real self-government and vitality. The Lieutenant Governor considered that the existing municipal Acts differ in their scope from each other; and in the Municipal Bill which was passed by the Bengal Council in 1871–72, an attempt has been made to weld these Acts together, and to regulate the whole subject of municipal administration and taxation. But the Bill failed to receive the sanction of the Viceroy. In Bengal there are 25 large towns with municipal institutions under a local Act (III. of 1864), 91 smaller towns under another local Act (VI. of 1868), and 65 under the Chaukidari Act. The Act XXVI. of 1850 is only in force at Jamalpur, in Monghir.

Municipalities in the North West Provinces.

In the North West Provinces there are 67 municipalities under Act VI. of 1868; and, in many cases, the two-thirds of the committees, which are not official, are elected by popular suffrage. A few have magisterial powers under the Act. Their income, in 1871–72, was 180,402 *l.*, raised by the *octroi* impost, the tax on houses, one on professions and trades, and a tax on carriages and horses. The *octroi* duty forms by far the largest item of the municipal funds

Octroi duties.

in the North West Provinces, the Punjab, and Oudh. It is levied on food, fuel, building materials, piece goods, and metals entering the town (Government property, salt, opium, and articles liable to customs duty, except piece goods and metals, and exciseable liquors being exempt); and so long as it does not become a transit duty, there is no taxation less unpleasantly felt or more profitable. There are also 275 towns under the Chaukidari Act, where the assessments are made under the orders of the magistrates, but the details are worked out by a punchâyat, or committee of the inhabitants. The collections, under this Act, amounted to 33,261 *l.*, most of which was absorbed by the pay of the police, but the surplus was applied to local improvements.

Punjab municipalities.

In the Punjab, the municipal committees, as has just been explained, are divided into three classes. There are seven of the first class, Delhi, Murri, Lahor, Amritsar, and the three hill sanataria; 19 of the second, and 103 of the third class. There are also 195 small towns administered by a magistrate in conjunction with a punchâyat, which are practically in the third class. The municipal income was 175,839 *l.*, five-sixths of which was derived from the *octroi* duty. Election is confined to two or three of the municipalities of the most important towns. In Oudh there are 17 towns under municipal control; but the committees are all nominated by Government officials.

Oudh Municipalities.

Madras and Mysor.

Madras Municipal Act.

In the Madras Presidency there are 46 municipal towns, and in Mysor 10. By the Madras Municipal Act (III. of 1871), not less than three inhabitants are appointed by the Governor in Council, as Commissioners, in any town brought under its operation, to carry out its purposes, to continue in office three years; and the collector is *ex officio* Commissioner in every municipal town in his district. It is provided that the Government, if thought advisable, may arrange for the election of a certain number of the Commissioners by the ratepayers. The funds are to be expended on the repair and maintenance of streets and bridges, diffusion of education, and on hospitals, dispensaries, choultries, markets, tanks, and wells. The Commissioners may levy a rate on the annual value of houses and lands, a tax on arts, professions, trades, and callings, on carriages and horses, and tolls.

There

There are 168 municipalities* in the Bombay Presidency, besides 54 in Sind. They are constituted under the provisions of an Act to enable improvements to be made in towns (XXVI. of 1850), but it is generally admitted that the time has come for its amendment; a Bill for that purpose is now under consideration. Many towns systematically evade the burden of municipal government, while it has been introduced into others which are so small as to render its working impracticable. The most important municipalities are Súrat, with a revenue of nearly 50,000*l.*; Púna, Ahmadabad, each with an income of 10,000 *l.*; Pandharpur, Sholápur, Nariád, Bulsur, Násik, Ahmadnagar, Belgaum, Hubli, and Sátára, with incomes from 9,000*l.* to 2,000*l.*; and Karáchi, with an income of 22,000*l.*; Haidarabad, Shikárpur, Sakkhar, and Lárkhána, in Sind. The members of the municipal boards in Sind, except those who have seats *ex officio*, are elective. The principal municipal revenues are from *octroi* duties, which are said to be more popular than any other form of taxation.

Bombay municipalities.

In Burma municipal action is much needed, and funds are required at Rangún for conservancy, water supply, and lighting. That town has grown with extraordinary rapidity. When first occupied by the English it was in a low swamp under water at every rise of tide. Lands were sold, and the proceeds were directed to the purpose of raising the land, and laying out streets. The Lands Sale Fund is now exhausted. Meanwhile the town is spreading in every direction, and people are settling in swamps in the unreclaimed part. The population of Rangún is now 100,000, and 400,000 tons of shipping visit its port, yet the only water supply is from unwholesome wells; there is not a single drain except on the surface, and there are no public lamps.

Rangún.

The general habit of self-government is thus being gradually diffused throughout India. In some parts its development is more rapid and complete than in others; but everywhere it is beginning to have an effect upon the people. The privilege of electing their own managers of their local affairs from among their neighbours has been extended, in several instances, to the inhabitants of large towns in the North West Provinces, and in Sind. There is a provision in the Madras Act with the same object, but it does not appear to what extent it has been put into operation. In the Punjab the privilege of election has been very sparingly applied. But where there is no election there is local government through *punchâyats*, or boards composed of the inhabitants, so that throughout India the habit of self-government engendered by municipal institutions may be expected in course of time to have a marked effect on the inhabitants of towns, and through them on the mass of the people. The levy of rates for local purposes is quite in accordance with ancient usage. These town dues were called *chunghi* or "handful," implying that everything that passed had to pay a small contribution.

Effects of municipal institutions.

The year 1871-72 has thus been one of considerable activity as regards the introduction of improvements into the system of administration, especially on the part of the Supreme Government and that of Bengal, while much legislative work has also been done. The uses of the new department and of the statistical survey will be developed during ensuing years, but their labours already begin to yield good fruit.

Recapitulation.

* According to the list in the Appendix to the Administration Report of 1871-72; but in the Report of 1870-71, the number is given at 201.

II.
FINANCE.

II.—FINANCE.

Income.

THE income for 1871-72 amounted to 50,110,215 *l.*; of which over 20,000,000 *l.* was derived from land revenue, 9,000,000 *l.* from sales of opium, nearly 6,000,000 *l.* from the salt tax, over 7,000,000 *l.* from customs, excise, and stamps, and the other 8,000,000 *l.* from smaller items. The ordinary expenditure amounted to 46,996,038 *l.* Tables showing the revenues and charges, and receipts and disbursements, and the items of revenue and expenditure, during the year 1871-72, will be found in the Appendix.

Expenditure.

Salt tax.

The main source of revenue is derived from the demand on land; but this is a branch of administration of such importance as to require treatment in a separate section. Next in importance comes the salt tax, a burden on the people, which, as long as it is moderate, simply acts as a capitation tax. The consumption of salt in India is greater, in proportion to other articles, than in any other part of the world. It is an absolute necessary of life, both for human beings and for cattle.

Bengal salt agencies.

The salt tax has always been raised on various systems, by the different local Governments. Until 1863 the districts on the sea board of the Bay of Bengal were divided into salt agencies. Advances were made to these agencies, and they agreed to manufacture and sell to the Government a certain quantity of salt at a certain rate. This salt was stored in Government warehouses until it was sold. The merchants paid the fixed price, including the duty, and received an order for the quantity required, upon a particular agency. The cost of each particular kind of salt was fixed each year by the Board of Revenue. The importation of foreign salt was also allowed, and it commenced in 1818, but there was no large importation until 1835. The custom dues were to maintain the average prices of Government sales. This Government monopoly was an artificial system of the worst kind, for the districts where the salt agencies were established were ill-adapted for the production of salt. The sea-water becomes diluted at the mouths of the Ganges and Brahmaputra; the salt cannot be evaporated by the sun's rays, and an expensive boiling process was necessary. In 1863 the Government resolved to abandon the system of manufacture altogether and to rely upon an excise, and upon the duty on imported salt. The consequence was that the production in Bengal ceased at once, and entirely. There was no excise on salt at all in the first year, after the abolition of the agencies, for there was no one who had sufficient capital to manufacture under the excise system. The price of salt fell 50 per cent. It was imported at 5 rupees per 100 maunds, having been manufactured at 100 rupees per 100 maunds. The chief importation is from England; but salt also comes from France, Madras, Bombay, Sind, and the Persian Gulf. In 1871-72 the quantity of salt imported into Bengal was 5,765,177 cwt. The Bengal duty is *Rs.* 3. 4 *s.* per maund, or about 1 *d.* per pound, and the amount raised, in 1871-72, was 2,578,134 *l.* The average consumption of salt in Bengal, per head, is calculated by Mr. Campbell at 9½ lbs., or 50 lbs. a year for each household, the cost of which is about 6 *s.* 6 *d.* A ryot thus pays, for his salt, about 5 per cent. of his annual income. The native higher classes constantly point to an increase of the salt tax as a means of improving the revenue; but the Lieutenant Governor of Bengal recently declared that he would rather cut off his right hand than be a party to increasing the tax on a first necessary of the poor, which is already enormously high.

Abolition of the salt agencies.

Importation of salt into Bengal.

Bengal salt duty.

Consumption of salt in Bengal.

Salt supply in the North West Provinces.

In the North West Provinces the salt supply is mainly derived from salt lakes in Rájputána. They overflow every rainy season, and on drying leave the salt in a thick incrustation. Formerly the duty was collected at various stations, scattered over the country. Afterwards the approach from the lakes was cut off by a long customs line which, before 1842, ran up the right bank of the Jamna until it joined the Himalayas, so as also to cut off the Lahore salt. Since that date the line has been turned from Delhi, across by Hissár to the Satlej, and since the annexation of the Punjab, down that river to its junction with the Indus. This exterior customs line was established in 1834. It is now 2,508 miles long; 10,800 officers and men are employed upon it, and the cost of its maintenance is 88,562 *l.* It consists of a hedge, partly green, partly dry, and there are 242 miles of the barrier which is not supplied with a sufficient

Salt Customs line.

cient hedge. The revenue from the salt line is 803,258*l.*; of which 414,501 *l.* was collected in the North West Provinces, and 388,757 *l.* in the Punjab. The duty on salt in the North West Provinces is three rupees per maund. Bengal imported salt very seldom comes up higher than Allahabad.

North West Provinces salt duty.

The Punjab salt supply is derived from the salt mines; and a customs line is also maintained down the Indus, to keep out the red salt of Peshâwar, 982 miles long. The income from salt in 1871–72 was 800,236 *l.*, including that from the salt line, and the cost 78,490 *l.* The duty is 3 rupees per maund.

Punjab salt mines and duty.

In Madras the salt revenue, since 1805, has been collected through a monopoly, the sale and manufacture being in the hands of the Government. Contracts are made with manufacturers at the different salt works for the quantity required for the year, which is then brought into store on the Government platforms and sold by measure. A sum of 40,000 *l.* a year is paid to the French Government not to manufacture salt at Pondicherry, but to receive supplies from the British officials, and not to sell below the Government price. The price has been periodically raised, and it is now two rupees per maund. Without the duty the price would be two annas per maund, so that the duty is *Rs.* 1. 14. The net income from salt in 1871–72 was 1,153,425 *l.*; the revenue having been increased by raising the price, but the increase of profit was considerably less than the degree in which the tax was augmented, and the sales have actually diminished. Lord Hobart is of opinion that the salt-tax has reached a point beyond which it ought not to be carried, and that further taxation would contract the consumption. It is proposed also to substitute an excise for the present monopoly, and an Act conferring powers to do so was passed in 1871. The consumption per head of the population in the Madras Presidency was calculated by Mr. Plowden at 15 lbs. a year. It has since been given at 12 lbs. a year.

Madras salt monopoly.

Madras salt duty.

Consumption of salt in Madras.

In the Bombay Presidency the excise system for salt was introduced in 1837. Previously the duty had been imposed partly as transit duty, partly as a monopoly price at the salt works, and partly as excise; but in 1837 a uniform plan was adopted. The Gujrât works, however, are Government property and a fixed price is paid to the makers. Elsewhere there is an excise on the manufacture, the makers taking out licenses to open works. Salt is exported to the Malabar coast and to Calcutta. A good deal is smuggled, and large quantities are made by solar evaporation in the Runn of Kach. In 1869 the Bombay duty was raised to *Rs.* 1. 14. The superintendence of the Bombay Salt Revenue has been removed from the Commissioner of Customs to a new officer styled Collector of Salt Revenue. In 1871-72 the excise duty on salt removed from the pans amounted to 591,321 *l.*, and the duty on salt imported by sea only 26,325 *l.* The other sources of salt income are, duty on salt imported by land 22,181 *l.*, proprietary right in Government salt pans, ground rent from salt pans, and sale of smuggled salt, giving a total of 657,289 *l.* for 1871-72.

Bombay salt excise.

Bombay salt duty.

In British Burma there is a duty on imported foreign salt, and an excise on that manufactured in the country. In 1871-72 the amount of European salt imported was 16,934 tons, and the net revenue 11,477 *l.*

It will be seen that the salt tax varies in amount in the different provinces; that in Bengal it is *Rs.* 3. 4., in the North West Provinces and the Punjab 3 rupees, and in Madras and Bombay *Rs.* 1. 14. per maund.

Variations in salt duty.

The possibility of equalizing the duties has long been discussed. Lord Hobart is in favour of reducing the duties in Northern India to the level of Madras. Sir G. Campbell thinks that the tax is too high in the North West Provinces and those countries which are far from the sources of supply; he would equalize the rate all over India, except in the lower valley of the Ganges, where the land revenue is permanently settled, making it two rupees for the lower and three rupees for the higher duty. The subject, which is one of vast importance to millions of people in India, is likely to receive very careful consideration from Lord Northbrook's Government.

Proposed equalization of salt duties.

The net opium revenue for 1871–72 amounted to 7,657,213 *l.*, the gross receipts being higher than in any previous year since 1855. This was due to the high price and to the small payments made to the cultivators owing to shortness of the crops. The opium is gathered in the early spring, manufactured and stored

Opium.

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Opium sales in Bengal.

in summer, and sold in the following year. In 1871-72 the number of chests sold was 49,695 at 139 *l.* per chest, which is 26 *l.* higher than the average price of the preceding year. The net profit on each chest was 90 *l.* The short opium crop of 1871 was caused by a peculiar blight, which was nearly absent in the crop of 1872, although drying winds and other causes again caused a short crop.

Area under opium cultivation.

The area under cultivation is increasing, and in 1871-72 was 560,000 acres in Bengal, and 608 in Bombay. It is a high class of cultivation, the land being specially attended to and manured; and a competent expert is employed by Government to watch the plant as grown by the cultivators, and to study the causes of and remedies for blight or other deterioration. There are two opium

Opium agencies.

agencies; one at Patna for Bahar, and the other at Ghazipur for the North West Provinces and Oudh, and the agents enter into contracts with the cultivators and make advances for the supply of opium at a rate fixed to meet the market, precaution being taken that all the produce is sold to the Government.

Málwa opium.

But opium is also grown in Málwa, in the Province of Central India, between Agra and Bombay. It can be grown more cheaply in Bahar, but the Málwa country is within the territory of native states, so that their free grown competes with our highly taxed opium. An administrative problem thus arose, which is analogous to that with reference to the unequal amount of the salt tax. It was necessary to put Málwa opium on an equality with that of Bahar and Benares, and to deprive it of the advantage it derived from being grown free of the monopoly in native states. This has been effected by levying a heavy duty on Málwa opium at Bombay, its sole legal port of export. Up to 1842 the duty was only 125 rupees per chest, and the quantity of Málwa opium exported was equal to that from Bengal. The object has since been to eqalise the duty in two ways; first, by increasing the quantity and lowering the price of Bengal opium, and secondly, by raising the duty on Málwa opium; it is now 600 rupees per chest. The amount realised, on opium exported at Bombay, was 2,355,159 *l.* in 1871-72, levied on 39,225 chests, of which 37,979 came from Indor and 1,246 from Ahmadabad. The subject of abolishing the monopoly in Bengal, and of substituting a customs duty as at Bombay, has often been under the consideration of the Government of India, but is surrounded with enormous difficulties.

Customs duties.

After land revenue, salt, and opium, the next item of revenue is the custom duties, which yield nearly two millions and a half nett, exclusive of the importa-

Bengal customs.

tion of salt. In Bengal alone the land and sea customs net revenue in 1871-72 was 1,009,464 *l.*, of which one quarter was for exports and three quarters for imports. Besides Calcutta, the ports are Chittagong, and ports in the Balasor, Cattack, and Puri districts. The largest item of import duty was on cotton manufactures, amounting to more than half a million; next come liquors, and then metals. Of the Bengal exports, more than half consists of rice; then follow oil seeds, indigo, and lac. The exportation of jute, cotton, silk, tea, saltpetre,

Madras customs.

and sugar is free. In Madras the net customs receipts amounted to 298,206 *l.*, but the good harvests of the two previous years reduced the demand for rice and grain. Cocoanut oil was largely exported from Malabar, and much grain was dispatched from the same province to Arabia. The net customs

Bombay customs.

receipts of Bombay reached to 602,729 *l.*, being a decrease of over 50,000 *l.*, said to have been caused by the effects of the war in Europe, and by the large export of spirits from bond, free of duty, to the Portuguese settlement of Damman, for importation to Súrat, in order to benefit by what is known as the Firmaun privilege. This privilege was granted to the Portuguese factory at Súrat by the Great Mogul in 1714, and has always been recognised by our Government. By it goods belonging to Portuguese subjects, and carried in Portuguese vessels, are subject only to 2½ per cent. duty on importation at Súrat, while the tariff rate is three rupees per gallon. A wide margin is thus left for profitable speculation. There has been a great increase in the export of grain from Sind.

Burma customs.

In British Burma the customs receipts have largely increased, and amounted in 1871-72 to 289,770 *l.* nett.

Excise.

The abkári, or excise duty on spirits, and the duty on stamps, are the items which come next to customs in importance. In Bengal the excise duties include spirits, intoxicating drugs and the proceeds of the retail sale of opium.

In

In 1871–72 the Bengal excise net revenue amounted to 723,949 *l.*, of which about 120,000 *l.* was from hemp, and 310,000 *l.* from opium, chiefly consumed in Asam. The hemp is produced in a limited area in the districts of Rájsháhi and Bogra, where it is cultivated in a skilful and scientific way. The duty on it has been so raised as that the consumption has become a third less than it was 15 years ago, and the revenue has been doubled. In certain districts of Bengal an experimental trial has been made of a plan for first fixing the number of spirit shops, and then leasing the retail licenses by auction. The object of this trial is, distinctly, to reduce the sale of intoxicating drinks, by raising the price and restricting the number of places of sale. Some steps have been taken for extending the cultivation of opium to the Punjab, by levying a tax of two rupees on each acre cultivated; but the attempt has not been very successful, 13,229 acres having been under cultivation in 1870-71, and only 6,225 in 1871–72. The Punjab licenses for the sale of spirits and drugs, as well as the sale proceeds of excise opium, in 1871–72, yielded a net sum of 83,649 *l.*; Madras, 553,791 *l.*; Oudh, 78,106 *l.*; and in Mysor and other provinces the abkári is a steadily increasing item. In the North West Provinces the excise takes three forms; a duty on the manufacture of country spirits, sale of opium, and farm of the right to retail drugs. The net excise revenue was 216,868 *l.*, being a considerable increase on the receipts of the preceding year.

Income tax.

The income tax has gradually lost more and more of its objectionable character by being levied more exclusively on high incomes. In 1870-71 the minimum of taxable income was 50 *l.*; in 1871-72 it was 75 *l.*; in 1872–73 it was raised to 100 *l.*: and now the tax is to be abolished altogether. It is doubtful whether an income tax could ever be properly assessed, unless it was continued and carefully worked out during a long series of years, and even then Sir George Campbell expresses a doubt whether it would ever serve as an effectual means of drawing a sufficient revenue from the untaxed upper classes. In Bengal there has been little complaint about the tax; and half the taxpayers of 1870–71 were exempted in 1871-72, in consequence of the minimum of taxable incomes having been raised. The taxable income of Bengal was calculated at 21 millions, of which 8 millions were derived from trades, 7 from land. In 1870–71 as many as 32,000 ryots and petty landholders were assessed; but in 1871–72, owing to the minimum being raised to incomes of 75 *l.*, there were none. This shows that no Bengal ryot has an income reaching to 75 *l.* a year. In the North West Provinces the demand on income tax was 79,174 *l.*; the total of incomes assessed being 8,229,510 *l.* There was much less objection to the tax in 1871-72 than in the previous year, only 16 per cent., instead of 65 per cent. The great objection to the tax, in the opinion of Sir William Muir, is that it destroys the influence and popularity of the district officers, and fosters suspicion and concealment on the part of the moneyed classes. In the Punjab the income tax receipts fell from 161,896 *l.* to 52,265 *l.*, the largest source being the salaries of Government servants. The Madras Government consider the income tax to be entirely unsuited to the circumstances of the country, and that it is retained at a cost to the community very disproportionate to its financial importance. In Bombay, 9,915 persons in trade were assessed as having incomes over 75 *l.* a year. The raising of the minimum taxable amount released 7,795 persons from the burden; and the yield fell from 37,600 in 1870–71 to 36,304 *l.* in 1871–72, from merchants, traders, house-owners, and landed proprietors. The number of public companies paying income tax was 53, yielding 13,004 *l.* In the whole Bombay Presidency 13,343 persons were assessed, in the following proportions. Of the European population, 39 per cent. was taxed; of the Parsees, 4 per cent.; while of the Hindus and Muhammadans, only a little over 1 per cent. The abolition of the income tax altogether, which has now been announced, will give universal satisfaction, although the raising of the minimum taxable income to 100 *l.* has removed all objections to it, on the score of its pressing hard upon the poorer classes.

Transfer of certain heads of expenditure to the control of the local governments.

A very important financial measure was adopted by Lord Mayo's government, which came into operation in 1871–72. Formerly, expenditure was completely centralised in the Supreme Government, by whom grants were made to the local governments, on detailed estimates showing the needs of each department. The local governments asked as much, and the central government gave as little, as possible. By a Resolution, dated 14th December 1870,

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certain heads of expenditure were transferred to the control of the local governments, with fixed annual grants to meet it. This grant amounts to the net assignments of the previous year for each head; a proportion of about 7 per cent. being deducted as a relief to the Imperial finances, and as representing a share of the burden to be charged upon local resources. The remainder was made over as a fixed annual income, the excess being defrayed at the cost of the province.

The heads, thus transferred, are jails, police, education, registration, medical services, printing, roads, civil buildings, and miscellaneous public improvements. This will undoubtedly prove to be a very beneficial measure. It will give the local governments a special interest in controlling expenditure on these heads, as well as in their efficient administration. The arrangement came into operation for the first time, during the year under review; but it appears that Bengal is the only province which has been able to make the assignment meet the expenditure on the heads placed under local control. Sir George Campbell has not found it necessary to impose fresh burdens on the people by local taxation. The assignment to the North West Provinces was 628,400 *l.* This has been found sufficient, except in the case of public works, where the expenditure exceeded the Imperial grant by 60,000 *l.* In the Punjab the arrangement came into operation on 1st April 1871; but the assignment was found to be insufficient, and in June of the same year, the Lieutenant Governor was empowered (Act XX. of 1871) to levy additional rates on the land not exceeding six pies per rupee on the annual value, to be expended under the control of local district committees. In the Central Provinces also, the assignment fell considerably short of the sum required for the support of the various departments transferred to local control.

Local taxation.

The question of local taxation has consequently required very careful consideration, and has received much attention from the local governments. It is beginning to press upon the people in various ways; through the municipal institutions, through the necessity for meeting the expenditure on heads transferred to the local governments, and through the general movement in the direction of improved administration. But the pressure is very unequal in the different provinces. Bengal, with a population of 64 millions, only raises 25 lakhs from local taxation; while the Punjab, with a population of $9\frac{1}{2}$ millions, raises $29\frac{1}{2}$ lakhs. Bombay, with a population of $13\frac{1}{4}$ millions, raises $36\frac{3}{4}$ lakhs; Madras, with a population of 30 millions, raises 47 lakhs; and the North West Provinces raises 53 lakhs, also with a population of 30 millions.

Bengal.

Thus the local taxation of Bengal, outside the presidency town, is extremely light as compared with that of the other provinces. There is a road cess and a small postal cess on Zemindars, in addition to municipal taxation. But in the Punjab the additional rate on land, already alluded to, has been imposed. It is called the new local rates cess, and has given rise to many complaints. It is represented, however, that the money is urgently needed for district works of importance, and that it is to be expended exclusively within the contributing districts.

Punjab.

In Oudh also this local rates cess has caused much discontent; and its imposition is reported to be looked upon as a breach of faith in the villages, the Government demand on which had previously been fixed for 30 years. In British Burma there is a capitation tax adopted from the old native Government, which is peculiar to that province, and is in accordance with long established custom. For the North West Provinces a special Act has been passed (XVIII. of 1871), making every estate liable to such assessment as the local government thinks fit, not exceeding 5 per cent. of its annual value; the term "annual value," being defined as double the amount of land revenue assessed on each estate. But there has been no new local cess in the North West Provinces, except in the permanently settled districts; this Act only legalizing existing cesses in the rest of the provinces In the permanently settled districts of Benares, a rate of two annas may be imposed on each acre under cultivation, half of which the landlord may recover from his tenant. Local committees are to be appointed to supervise the expenditure of the sum assigned. Thus "the deficit, together with the increased expenditure which the yearly "growing demands of administrative efficiency may require, is to be made up by "provincial

Oudh.

Burma.

North West Provinces.

"provincial taxation." In the Central Provinces, local demands are met by the *pandhri*, an old Mahratta tax on the non-agricultural classes, which was in existence when Nágpur was annexed, and though re-adjusted, it has always been continued. In 1867 it became a pure income tax on persons whose incomes were derived from any other source than agriculture, the lowest limit being 7 *l.* 10 *s.*; and persons assessable to income tax were exempted from the *pandhri*. In 1869-70, its proceeds were made over to the local government, and by this means an adjustment of local income and expenditure was effected. The lowest range of the *pandhri* has been raised from 7 *l.* 10 *s.* to 10 *l.* per annum, which has reduced the number of payers one-half, the loss of income being 22 per cent. Tolls were also introduced on two important lines of road in the Central Provinces, but with an unsatisfactory result. There are also education, postal, and road cesses; besides the octroi levied by municipalities.

Central Provinces.

In Madras the local cesses are many and various. But what the people most feel and dread are the frequent changes. "A ryot either has to pay, or is in imminent danger of having to pay, about a dozen different kinds of taxes and fees. There are the land, water, house, and income taxes; the road, irrigation, and village service cesses; the education rate, the toll on roads, the octroi, the stamp duties, and registration fees. It is beginning to be felt, in this presidency, that some pledge ought to be given that there will be no further taxation for 30 years, except in case of war." In Bombay the deficiency as regards the transferred branches of administration has been met by making the municipalities liable for the maintenance of the police, and by claiming an amount not exceeding one-fifth out of the gross revenues of certain towns. A cess was also made leviable on the non-agricultural classes in districts which, it was considered, did not contribute their fair share towards the expenses of the state. This tax was extremely unpopular, and caused much discontent, and it has since been abolished.

Madras.

Bombay.

A brief general recapitulation of the local taxation will make its scope more clear. A 5 per cent. cess on the rental, in excess of the land revenue, which was arranged for at the time of the current settlement, and can give rise to no complaint, is levied in the North West Provinces, the Punjab, the Central Provinces, and Burma. It is applied to expenses connected with the police, education, the local post, and roads. In addition to this cess which forms a part of the settlement, a "local rate cess" has been imposed in the North West Provinces, the Punjab, and in Oudh. In Bengal and Madras there are tolls upon ferries, roads, and canals; and in Madras and Bombay there are water rates, road and education cesses. In the Central Provinces there is the *pandhri*, or tax on incomes of 10 *l.* a year and upwards. The octroi duties are levied by municipalities throughout India except in Bengal, and in Burma there are also bazar collections. In Madras there is a tax on trades and professions, and in the Punjab a municipal horse and wheel tax.

Recapitulation of local taxation.

The introduction of a paper currency into India dates from 1861, and, after having been in circulation for 10 years, the results in 1871-72 are reported to be very satisfactory. Before 1861 there was a limited circulation of notes issued by the chartered banks of Bengal, Madras, and Bombay, and with a circulation confined almost exclusively to the presidency towns. India had been steadily draining Europe of silver bullion at the rate of 10,000,000 *l.* a year; the circulating medium was silver, and there was an incessant transmission of large remittances to and fro over the length and breadth of the land. The great expense and inconvenience of carrying about heavy packages of silver rendered the introduction of a paper currency a measure of no small consequence to the welfare of the people of India. Mr. Wilson originally proposed the adoption of this measure in a Minute dated 25th December 1860. But his scheme received some modification in the Act to provide for a Government Paper Currency (XIX. of 1861), which was passed when Mr. Laing was Financial Member of Council. A Department of Issue was established for the issue of promissory notes, payable on demand, for sums not less than 10 rupees. Mr. Wilson intended to have issued notes as low as 5 rupees. The head commissioner of the Department of Issue is the master of the mint at Calcutta, and the masters of the Madras and Bombay mints are also commissioners. Circles of issue are established, each

Paper currency.

with a chief town as a centre or place of issue of notes, with subordinate agencies of issue within the circle. The head commissioner provides the promissory notes, which are issued at the different centres in exchange for silver, or for other notes; and the whole amount of the bullion or coin so received for notes must be retained as a reserve, with the exception of such an amount, not exceeding four crores of rupees, as the Government may from time to time fix, the amount so fixed being invested in Government securities. The notes are deemed to have been issued on the security of silver received for them, of the money invested, and of the general credit of the Government. The promissory notes are legal tender within their respective circles. A short Act (I. of 1866) was subsequently passed, altering the conditions on which persons tendering bullion or foreign coin were to receive promissory notes in exchange. In the first Act it was provided that such persons might be required to pay the expense of melting and assaying such bullion or foreign coin. The new Act entitled them to receive a certificate acknowledging the receipt, and the value, after deducting the expense of melting and assaying, and also stating the interval on the expiration of which the holder shall be entitled to receiving notes in exchange. In March 1862 an agreement was made with the chartered banks, to continue in force for five years, which provided for the issue and payment of the currency notes, through their agency, and for the establishment of branch banks with the same object. The notes are of 10, 20, 50, 100, 500, and 1,000 rupees; and up to 1867 ten circles had been established at Calcutta, Allahabad, Lahor, Nágpur, Madras, Calicut, Trichinapalli, Vizagapatam, Bombay, and Karáchi. The amount of notes to be issued is not to exceed 4,000,000 *l.* In 1866 the circulation of these notes had reached to over 10,000,000 *l.* Since that time the demand for notes has steadily increased. In Bengal the issue of notes in 1871-72 amounted to 2,073,572 *l.*, as compared with 869,486 *l.* in 1870-71; and the local officers report that the increased paper circulation has been a great convenience to the trading classes, and that notes are now beginning to pass from hand to hand at par in the neighbourhood of the treasuries. In the North West Provinces 1,221,060 *l.* worth of notes were issued, the number of notes being 94,712. The demand for small notes was very large, which is a sign that they are not only used as a medium of exchange in remittances, but are, to some extent, coming into use instead of silver in the ordinary transactions of daily life and commerce. In the Punjab the average circulation of paper notes, in 1871-72, was 841,836 *l.*, showing an increase of nearly 86 per cent. over last year's average; and in Madras it was 1,260,477 *l.* In Bombay, 1,968,877 notes were received and issued, to a value of 21,841,335 *l.*; and the circulation of notes averaged 4,820,603 *l.*, being a rise of 21 per cent. above last year's average. In the Madras Presidency the establishment of paper currency agencies was sanctioned, in January 1872, in eight new places, including Utakamund, Tutikorin, Cocanada, and Mánantawádi (the chief place in Wynaad), for the convenience of the coffee planters. The currency notes are acquiring the ready confidence of the public; and this measure, which was first worked out by Lord Halifax, has, in a very great degree, promoted the convenience and commercial welfare of the people of India.

III.—LAND REVENUE.

THE land revenue of India is a branch of the administration which is so closely connected with the every-day life of the people, and so important in its political as well as in its merely fiscal bearings, that it can never be treated like salt or customs, as a mere item in a financial account. The welfare and contentment of the people depend upon the wise adjustment of the demand on the produce of the land; and the difficult questions relating to land revenue have always required the most close and careful attention from Indian Statesmen. At present this subject is under consideration in most parts of India. The new settlements throughout the North West Provinces have not yet been sanctioned. Settlements are in course of adjustment in the Punjab. The old settlements are falling in throughout the Bombay Presidency; the Madras survey is in progress, and the Lieutenant Governor of Bengal is doing all that is still possible to improve the state of affairs in that province. So that, although a few districts have been actually settled during the year under review, the present is a fitting occasion for briefly reviewing the state of the land revenue arrangements in British India. **Land revenue**

Bengal and Bahar being under the permanent settlement of 1793, can receive only very partial benefit from the efforts of modern rulers. Their hands are tied; the land was assessed for ever to the Zemindars, who held it 90 years ago, on payment to the Government of ten-elevenths of the rental; but on failure of payment a defaulting estate was immediately to be sold. The Government, however, required that the rent to be paid to the Zemindars by the cultivators should be specified, and reserved the right of interference on behalf of the inferior holders. A judgment creditor has the power of selling the landed rights of a debtor, and sales for debt have always been frequent, as well as for failure to meet the revenue demand. Before our rule the land was practically not transferable by sale, and the seizure and sale of land for private debts scarcely ever occurred, because there was no absolute property in land, recognised by the State. Thus the permanent settlement has deprived the State of all participation in the increased value of land, while it has endangered the position of tenant cultivators. These consequences are inherent in the system, and cannot be greatly modified. The land revenue of Bengal, Behar, and Orissa, was a little over 3,000,000 *l.* in 1793, and it is nearly the same now, yet the rental of permanently settled estates is now 10, 15, 60, and even 100 times the amount of the Government demand, instead of eleven-tenths of it, as in 1793. **Bengal.**

There are, however, evils which have grown up with the permanent settlement, but which are not necessarily part and parcel of it, and the present Lieutenant Governor has turned his attention to their remedy. At the time of the introduction of the Government settlement no survey was made. There was a mere register of rent-paying estates, with the names of the proprietors, but no means of identifying the lands. The Cánoongoes, or district accountants, whose duty it would have been to register all holdings and transfers, were abolished; and the Patwaris, or village accountants, who should have kept a record of the rights of the ryots, fell into disuse, or became mere servants of the Zemindars. **Evils of the permanent settlement.**

Sir George Campbell has taken steps to restore the ancient institutionsof the country, which the permanent settlement has done so much to impair. The whole of Orissa (which, however, is not under permanent settlement) is now parcelled out into Cánoongoe jurisdictions; and Patwaris are being regularly registered and recognised throughout the Lower Provinces. The Lieutenant Governor is anxious to foster and improve indigenous agency, and to secure the rights of the cultivators. With this view, the sales of estates which come into the hands of the Government from default of payment of the demand, are suspended pending a full inquiry into the minor tenures, and until all rights have been recorded. Many great landed estates also come under Government management from being owned by owners disqualified on account of sex, age, or mental incapacity; and it is intended that they shall be models of what well managed estates ought to be. The survey of Bengal, except the **Restoration of village offices.** **Estates of wards.** **Surveys.**

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the district of Midnapur, is now completed. It consists of three branches; firstly, the demarcation, and, secondly, what was called the "scientific" survey. The demarcation officer defines the boundaries of villages and estates on a scale of 16 inches to the mile, and settles disputes. The scientific surveyor then fixes the village boundaries, and delineates all topographical features. A third important branch of the survey is that which takes cognizance of the alluvium and diluvium on the banks of rivers; processes which are constantly in progress, and which increase and decrease the area of estates. The alluvium and diluvium survey was commenced in Patna in 1863, and finished in Rájsháhi in 1871.

Government estates.

Several thousand estates come under settlement by the Board of Revenue every year, which have either been bought in by the Government at auction, thrown up by the rivers, or reclaimed from jungle. On these Government estates the settlement is made with the village headman or the ryots themselves, and the rights of the ryots to hold their lands, subject to the payment of fair rents, are to be recorded. The question of the sale of Government estates by auction has been under consideration, and, in the meanwhile, their sale has been stopped since May 1871.

Districts not under permanent settlement.

There are, however, several districts within the Government of the Lower Provinces, which are not included in the permanent settlement; such as Orissa, Cachar, some lands in Chittagong, the Palamau pergunnahs in Chota Nágpur, the Bhutan Dhoors, Kuch Behar, and Asam. In the latter extensive district the demand was at first paid by means of a poll tax and personal service. In 1832 a land and plough tax was introduced, collected by the village headmen, and in 1867 a settlement was made direct with the ryots, when the revenue was nearly doubled. It rose from 128,850 *l.* in 1868 to 207,754 *l.* in 1869.

Recapitulation of Sir George Campbell's measures.

Thus, as regards the administration of the land revenue in Bengal, active measures have been adopted to ascertain and register the rights of the cultivators, to execute revenue surveys, to make the Government estates and those of wards models for imitation throughout the country, and to restore the ancient village offices and institutions. The net land revenue of the Lower Provinces for 1871-72 was 3,651,556 *l.*

NORTH WEST PROVINCES.

The settlement of the land revenue of the North West Provinces was made between 1834 and 1844, generally for 30 years, so as to terminate between 1864 and 1874. A renewed settlement has now been in progress for several years; but the revision of the settlement has not yet been finally sanctioned in any district. The sanction of Government for the new settlement in the different districts, will be given during the next and following years, so that the present is a convenient time for giving a short general sketch of the principles upon which these settlements are based.

Emperor Akbar.

The first regular settlement of what are now called the North West Provinces, was commenced by Shir Khan, and completed by the Emperor Akbar. Correct accounts of the boundaries of each village were drawn up, the cultivated and uncultivated areas were measured, the land was divided into classes with reference to the descriptions of soils, and each field was assigned to one class or other. The average produce of each class, and the average price of grain was then ascertained for 10 years, and one-third of the average gross produce was taken as the rent. But the leading principle of Akbar's settlement was that the Government held the village community, and not each individual cultivator, responsible for the payment of the rent.

Regulation VII. of 1822.

Akbar's principle was adopted by the English in Regulation VII. of 1822, by which the lands were to be measured and classified, and the rents to be ascertained and registered for the thorough protection of the cultivators; and still following the example of the great Emperor, the settlements were to be made with the proprietors, whether individuals or communities, and not directly with the cultivators.

Difference between Akbar's system and ours.

There is, however, one important difference between the system of Akbar and that of the English, which it is necessary to bear constantly in mind. Akbar was the landlord and received the rent from the cultivating communities. The English have admitted the existence of proprietors, who receive the rent, while the Government only takes a portion of this rent as a land tax.

For 10 years the scheme contained in Regulation VII. of 1822, remained ineffective, owing to the want of the requisite machinery for its execution; but this

this was provided for by Lord William Bentinck in Regulation IX. of 1833, and the settlement was commenced. A great administrator, Mr. R. M. Bird, carried it through during the next nine years, and by 1842 it had been completed in all the districts. Regulation IX. of 1832.

Mr. Bird was at first only interested in the improvement of the judicial machinery, and the various arrangements of the settlement were not originally intended as machinery for the accurate ascertainment of the resources of the land. Their first object was the framing of a record of the several interests of those who held their lands in common, and of the rights of cultivators; and Mr. Bird was induced to enter upon the investigation by the conviction that the judicial tribunals were unequal to the ascertaining of those rights, and to the protection of those who possessed them. He undertook the duties of a revenue officer only with the view of perfecting these plans for the good of the people, and because he was convinced that practical operation might be given to the rules contained in Regulation VII. of 1822. His principle was that the assessment of a fair and moderate revenue on the land might be so combined, with an ascertainment of private rights of the village communities, that such records might be framed, such principles fixed, as would correct the evils which, at that time, interfered with agricultural prosperity. Thus the founder of the settlement of the North West Provinces was not an officer whose chief idea was the collection of revenue, but a great administrator, whose first thought and moving principle was to secure the people in their rights and to promote their prosperity. Mr. Bird.

The principle of the settlement was to take two-thirds of the rental as Government revenue, leaving the remaining third, and all future increase during the term of settlement, to the proprietors. It will be remembered that Akbar took the whole rental, and recognised no proprietor but the State. In this lies the main difference between his system and ours. The proprietors recognised by the settlement were not always the village communities, but in many, if not in most cases, they were intermediate persons who succeeded in establishing claims to the rent. The tenure by village communities or brotherhoods, is called Bhyacharah; but this tenure exists in the smaller proportion of the whole number of villages in the North West Provinces. The most common tenure is that where a village belongs to a family, the cultivators being tenants of all the family as a body. The Government settlement is made with the proprietors for each village or township. Tenures.

The first operation is the demarcation of the village boundaries, and the ascertainment of its total area, and the next is the interior measurement of fields by rod and chain, called the khusruh. Each field is registered with the name of the cultivator and proprietor, its dimensions and area, the nature of the soil, and the rent. A list of cultivators is made out, showing what each holds, and what rent each pays, and another list is made out of the proprietors. An administration paper of each village is then drawn up, showing how the revenue is to be distributed and collected, what are the relations between proprietors and tenants, and the remuneration of village officials. Cánoongoes, or district accountants, are then appointed by the Government, and patwaris, or village accountants, by the landholders. Operations of the settlement.

The first settlement, for 30 years, was completed in 1842. It included 80,883 townships, and an area of 71,985 miles; and the revenue demand was fixed at 4,052,992*l.*, including the permanently settled province of Benares. The rate per acre on cultivation was 3 *s.* 6 *d.* The population affected by the settlement was 23,199,668. Results of the settlement.

Mr. Thomason, one of Mr. Bird's most able assistants, administered the system for 10 years (1843 to 1853) as Lieutenant Governor of the North West Provinces. The collectors of each district have, under them, an efficient native executive staff, consisting of tehsildars, eight or ten to a district, who superintend sub-divisions, and enable the collectors to exercise a minute control over the affairs of the district. Administration of the settlement.

The 30 years of the first settlement were interrupted by the drought and Famine of 1837–38, the Mutiny of 1857, and the Famine of 1860-61. The latter visitation gave rise to a long discussion on the advisability of introducing the Bengal permanent settlement into the North West Provinces. The Famine of 1837 was more severe than that of 1861, although there was heavier pres- Question of a permanent settlement.

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sure from drought in the latter year, and the reason of the power of the people in the latter year to pass through the ordeal with far less suffering was believed to be the creation of a vast mass of readily convertible and easily transferable agricultural property. This state of things was the direct result of the limitation of the Government demand on land for the long term of 30 years, and the careful record of individual rights. The settlement had introduced moderate assessment, minutely recorded and easily understood titles, long leases, and the guarantee of enjoyment of all profits during the currency of such leases. Land thus obtained an increasing marketable value, which as a security was largely made use of in mitigating the pressure of the famine. Such being the result of the fixity of the public demand for 30 years, it was urged that the inference was irresistible that, to perpetuate these results, the public demand on land should be fixed for ever. These arguments were urged by Colonel Baird Smith in his Report on the Famine of 1860-61, and by Mr. Patterson Saunders in his account of the cotton districts of the Doab; and a strong feeling arose in favour of a permanent settlement. A long official discussion on the subject was carried on between 1861 and 1868, but the Government never appear to have intended to introduce a permanent settlement over a wide extent of country, but to limit it to particular estates under certain conditions. The proposal was to calculate the proportion between cultivated and fallow land on an estate, and where the cultivated area exceeded a fixed ratio, to grant a permanent settlement, withholding it from estates where that test failed, until the required proportion was reached. This method was resolved upon as a precaution against "undue sacrifice" of the Government revenue; and Sir Charles Wood, in a Despatch dated 24th March 1865, ordered that no estates of which the actual cultivation amounted to less than 80 per cent. of the cultivable area was to be admissible to a settlement in perpetuity. This decision was repeated in a Despatch from Sir Stafford Northcote, dated 23rd March 1868; and another provision was added, namely, that no permanent settlement should be concluded for any estate to which canal irrigation was likely to be extended within the next 20 years. The terms on which a permanent settlement was to be granted were thus at length formulated, and officers were ordered to ascertain what estates were ripe for settlement in perpetuity.

Objections to a permanent settlement.

But Sir William Muir, when he became Governor of the North West Provinces in 1868, found it necessary to re-open the question. He represented that the two conditions enjoined by the Secretary of State were not sufficient, and that a third ought to be added, namely, evidence that the standard of rent prevalent is adequate, and not below the level of rent throughout the country at large. To this condition the Government of India added another which virtually put an end to the proposed measure altogether. It really amounted to a postponement of a permanent settlement so long as the country continued to improve by any cause independent of the action of the occupant of the land.

Permanent settlement abandoned.

Thus the matter rests, after a discussion extending over 12 years. First, a general permanent settlement at existing rates was proposed; then it was declared that settlement in perpetuity could only be granted to such estates as had 80 per cent. of their cultivable land under cultivation; then another condition was added with reference to the extension of canal irrigation; then a third condition was proposed; and, finally, the Government have declared that, pending further discussion of the whole question, the existing orders on the subject are to be held in abeyance. The elaborate minutes and despatches which have been written since 1861, have led to no result; but in the meanwhile the settlement officers and the people have been kept in a state of great uncertainty. The late Sir Donald M'Leod, Lieut-Governor of the Punjab, before he left India in 1870, recorded his opinion against the introduction of a permanent settlement. He considered that it would be a mistake to declare permanent the money assessment of any land whatever, because money is an unreliable standard of value. Fifty years hence, if the demand assessed upon land represents but half the real value it did when first fixed, it will be a matter of the utmost difficulty to find other sources from whence the enormous deficit can be supplied, and the effort to realise it will be attended with exceeding danger. But Sir Donald added that if, instead of using a cash standard, we were to employ some other standard supplying a correct measure of the increase of value, such as the value of labour

labour and the price of corn, he would be entirely in favour of permanency of settlement, wherever the cultivation had attained to the required proportions.

Rent Act of 1859.

The Famine of 1861 led to the long discussion of the permanent settlement question. Another very important event during the currency of the first settlement of the North West Provinces was the passing of Act X. of 1859, to amend the law relating to the recovery of rent. By this Act every cultivator is entitled to a potha, or legal document, containing the amount of annual rent to be paid to the proprietor; but the proprietor is empowered to raise the rent at the expiration of the period stated on the potha, by serving a written notice. The grounds on which the different classes of cultivators are liable to enhanced rent, are stated in the Act, and the proprietor is empowered to enforce his claim in a court of law.

New settlement.

The new settlement of the North West Provinces necessitated a repetition of all the elaborate processes which were introduced by Mr. Bird in 1832: measurement, inspection, assessment, preparation of records, and decision of claims. Almost all the records were destroyed during the mutinies. During the 30 years of the old settlement, the proprietors effected considerable changes in the rent rates, while the Government demand of two-thirds of the rent remained the same. In the new settlement, the Government demand has been reduced to one-half the rent; but the settlement officer has to discover the extent to which the rent rates have been modified by competition and increased prices, and by the rent law (Act X.) of 1859.

Progress of new settlement.

By 1871, the settlement of eight districts had been completed, but not yet sanctioned by the Government, namely, Dehra Dun, Saháranpur, Gorakhpur, Busti, Jhansi, Lalatpur, Bulandshahr, and Garhwal. In the case of Muzaffarnagar, a doubt was raised as to the sufficiency of the rates fixed, and a revision was ordered. The measurements were completed in 13 districts, and the work of inspection was brought to a close in six. The actual net increase of revenue up to March 1872 is 282,631 *l.*, or 13 per cent. on the land revenue assessed. The revision of settlement has been going on for 17 years; and there are now only four districts, Murádabad, Agra, Humirpur, and Banda, in which the former settlement had not expired on 1st April 1872. In Etáwah and Mattra it came to an end in July 1871.

Cadastral survey.

An important change has been made in the manner of conducting the village surveys, which are the foundations of the settlement operations. Instead of the old method by means of measurements of fields by native amins, checked by an accurate survey of village boundaries, there is in future to be a cadastral survey on rigorous principles, in every detail, such as exists in Madras. The settlement maps were sufficient for the purposes for which they were primarily intended; but they could not be used in compiling a district map, nor could they pretend to the same scientific accuracy as is obtained by the adoption of correct principles of surveying. The Government of India, therefore, resolved to have the field surveys, as well as the village boundaries, executed by the Surveyor General's Department, and thus to place the whole operation under one head, and to introduce a cadastral survey such as is executed in the countries of Europe and in Madras. In 1871-72, the cadastral survey of Mattra and Murádabad was accordingly made over to two parties of the regular survey. By this measure there is a saving of labour, for work was formerly done twice over to some extent; but this saving is said to be outweighed by the higher cost of the supervising establishment. In that case the excess should not be charged as part of the cost of the settlement, but debited to the general purposes, for which a correct survey will be useful. At the same time really accurate measurements, made on rigorous principles, may be the means of very materially enhancing the land revenue, as will presently be shown, in glancing at the operations of the Madras Revenue Survey, and its results.

Government demand.

Additional cesses.

The Government demand is now fixed at 50 per cent. of the assumed rental, and an additional 5 per cent. is taken in the form of a cess for local purposes of education, roads, police, and other objects of general improvement. But, by a recent despatch from the Secretary of State, a change has been made with regard to the settlement of the cesses, for, while the amount of the land revenue is fixed absolutely for the period of the settlement, the amount of cesses is declared to be open to revision, from time to time, at the discretion of the

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local Government. Judging from the districts already settled, it is calculated that the rent rolls of the province have increased by 52 per cent. since the first settlement, by reason of extension of cultivation, enhanced prices, and competition.

Rent-charges.

A very important fact in connection with the agricultural prosperity of the provinces has been brought out by the new settlement. As much as 74 per cent. of the assessable area of the districts hitherto surveyed is actually under cultivation. Mr. Bird has left on record his opinion that one-fifth of the cultivable land should always be left untaxed, to allow for raising artificial grasses or other fodder for cattle, and for fallows. This margin has long been encroached upon in many districts, so that very little increase of revenue can be expected to arise from further extension of cultivation. Hence, if the Government raises its demand on the land, the proprietor can only meet the enhanced demand by raising his demand for rent. Here, then, will the great difference between the system of the Emperor Akbar and that of the English, be made practically apparent. Akbar recognised no proprietors, and the rent was the Government demand. We have created a body of proprietors with powers, which none but the Government ever claimed before, over the original occupants of the land. Thus the process of raising rents, aided by our law courts, may give rise to much strife and discontent; yet the revenue cannot be raised further than the rents have as yet risen, without the danger being faced of a general rise of rents. To remedy this evil, it is proposed to pass an Act enabling the settlement officer, when he raises the revenue, to raise the rent also. It is said that the powers given by Act X. of 1859 are not now largely used by the proprietors to raise rents, but they have the power and may, at any time, begin to use it. During the year 1870-71 there were 60,405 suits instituted under Acts X. of 1859 and XIV. of 1863; of which 34,516 were for arrears of rent, 4,812 to eject cultivators, 3,025 to recover occupancy, and 2,468 complaints of excessive demand of rent. The evil will be remedied by an Act, to be passed this year, enabling the settlement officers, when they raise the revenue, to raise the rent also.

The net land revenue of the North West Provinces for 1871-72 was 3,682,588 *l*..

OUDH.

Oudh Land Revenue,

Settlement of 1856-57.

Confiscation of tálukdári estates.

After the annexation of Oudh in 1856 a settlement was made, village by village. The object was to deal with actual occupants of the soil, called village zemindars, or with proprietary co-partners, and not to suffer the interposition of middlemen. The claims of the tálukdárs, or great landed nobility, were to be considered at some other time. But it was a mistake to assume that the tálukdárs were only middlemen employed to collect revenue. They formed, to a great extent at least, an old landed aristocracy possessing undoubted rights of property in the soil; and two-thirds of Oudh (23,500 villages) were in their possession at the time of the annexation. Yet the assumption that they were interlopers, with no rights of property, was acted upon in the extremest manner. The Maharaja Main Sing, one of the most powerful tálukdárs, possessed 577 villages, paying 20,000 *l*. to Government as land revenue. The settlement of 1857 dispossessed him of all but six villages paying 290 *l*. It is doubtful what his private income may have been, but it was probably 20,000 *l*. a year, which was suddenly reduced to 300 *l*. This is one instance out of many. In another ancient estate out of 378 villages, 266 were taken away; in another 155 villages were confiscated out of 204. The sweeping injustice of the settlement of 1856-57 in Oudh can hardly be overstated. It amounted to the confiscation of property worth several millions sterling. The consequence was, that in Oudh alone, the mutiny of the Army led to a general rebellion of the more influential classes of the people. Lacknow was recaptured in March 1858, and Lord Canning issued a proclamation confiscating the proprietary right in the whole soil of Oudh, with the object of making all titles depend upon grants from the British Government.

General rebellion of the people.

Engagements and agreements with the tálukdárs.

Sir Robert Montgomery, the First Commissioner of Oudh after the Mutiny, resolved to abandon the policy of 1856-57, and to restore the tálukdárs to all they had formerly possessed. They were invited to come to Lacknow with safe conducts; two-thirds of them did so, and political engagements were entered into with them, for the settlement of the land revenue of Oudh. It was, as

General

LAND REVENUE.

General Barrow, one of the divisional Commissioners, expressed it, "A revenue settlement made upon the battle field," and as such possesses the character of a political treaty.

Tálukdári settlement.

The present settlement of Oudh is, therefore, a tálukdári settlement, so framed as to secure village occupants from extortion, and exacting certain duties and responsibilities from the talukdars. The tálukdárs were confirmed in possession of everything they held at the time of the annexation, in February 1856, and the rights of subordinate proprietors were confirmed as regards all they had held at the same period. The Government demand was fixed at half the gross rental, the under proprietors only retaining that share of profits which they formerly enjoyed. In 1859 sanads or titles were issued to the tálukdárs, giving them permanent hereditary and transferable rights, including the perpetual privilege of engaging with the Government for the revenue of their tálukdárs; these rights, however, being subject to any measure the Government might take to protect the village zemindars and other occupants from extortion, and to uphold their rights in the soil, in subordination to the tálukdárs. These sanads were granted, and issued by Sir Charles Wingfield on the 19th of October 1859.

Sanads granted to the tálukdárs.

Succession to tálukdári estates.

The tálukdárs hold their property by virtue of these sanads, on conditions unknown to Hindu or Muhammadan law. They have full powers of alienation by will, and in case of intestacy their estates descend to the nearest male heir, according to the law of primogeniture. But subsequent legislation has introduced some modifications. Every tálukdár now has power to revert to Hindu or Muhammadan law, or to the ancient customs of the family as regards the rule of succession to estates; and by the "Oudh Estate Act" (I. of 1869) a list of Oudh tálukdárs is to be placed on record with the law of succession applicable to each estate, but the right to transfer or bequeath is still retained.

Rights of small proprietors.

The tálukdárs, as a rule, have shown themselves willing to make concessions with regard to the smaller proprietors who hold land under them, and whose rights have now been well secured. The great landowners have agreed that a class, including one-fifth of the whole number of cultivators, shall receive rights of occupancy, and important protection has been extended to other classes of tenants. By Act XXVI. of 1866, called the "Oudh Sub-Settlement Act," the rules were declared to have the force of law, which the Chief Commissioner had previously made, for determining the conditions under which those who possessed subordinate rights under the tálukdárs should obtain the sub-settlement of lands or villages, which they held before the annexation in February 1856. The payments made by the under-proprietors to the tálukdárs, before the annexation, form the standard by which the present payments are regulated; but they are never to exceed the gross rental of the village, less 10 per cent., in what are called seer or naukar lands, that is, lands set apart for the subsistence of the tenant or home farms.

Present Settlement and Land revenue.

The revenue and field survey of Oudh was completed in 1871; 466 square miles, assessed at 14,673 *l.* a year, were settled in perpetuity; 20,617 for 30 years and upwards; 71 for terms under 30 years; and 1,731 were in progress of assessment. The number of acres held under the law of primogeniture is 5,497,976. There are 410 tálukdárs, of whom two-thirds hold their estates under that law. The number of under proprietary holdings in the province is 31,280, and the average rent paid on them about 1 *s.* 6 *d.* per acre. The net land revenue of Oudh in 1871-72 amounted to 1,207,902 *l.*, the largest that has been collected in the province since the commencement of British rule. No estate was sold for arrears.

PUNJAB.

The system of the North West Provinces was introduced into the Punjab on its annexation, but there is one great difference between the two provinces. In the North West Provinces the village communities have only been partially preserved; but in the Punjab, including the Delhi district, all the old village communities are very often perfect, each with a cultivating body and a complete internal system of management. Each man has land to correspond to his share in his own separate management, and the grazing ground is common to the cattle of all. Certain sums were always set apart from the revenue, for the remuneration of village officials. The Punjab settlement is based on the same system as that of the North West Provinces, with the essential difference that in the Punjab the bulk of the proprietors are actual cultivators, and that there are much fewer

III. LAND REVENUE.

non-cultivating proprietors. Each Punjab village undertakes the payment, through its representative council of elders, of the revenue assessed upon it; and the payment is distributed among individual members of the community in proportion to the land held by them. The revenue is very punctually paid, and sales of land are unknown. Another great blessing enjoyed by the proprietors of land in the Punjab has been that, up to this time, they have been exempted from the interference of the civil law courts administering technical law. The settlement officers are invested with judicial powers, and landed property is not liable to summary sale in satisfaction of simple debt, without the special sanction of higher authorities.

Settlement operations.

As in the North West Provinces, the village boundaries are surveyed scientifically, and the fields are measured by means of native agency, the village field map and index being annually revised by the village accountant or pátwari. Every acre belongs to some one, and can change hands by sale, mortgage, will, or legal transfer, but the settlement is made with the proprietors as a whole. The assessment is fixed on each village for a term of years, and is calculated to leave an ample surplus profit. This demand does not exceed one-half of the net rent to the proprietor, after deducting all expenses of cultivation. In addition, one per cent. of the net assets is deducted for a road fund, one per cent. for an education fund for village schools, and there is a charge for a district post, besides a cess for police and conservancy. There has been a very great increase of cultivation during the last 15 years, under the settlements made for limited periods.

Progress of settlements.

During 1871-72 revenue settlements were at work in six districts, and in six others the revised settlement, completed between 1865 and 1869, were confirmed; two will expire in 1874, one in 1876, and the others between 1880 and 1888. As many as 11,991 suits for rights in land and rent suits were disposed of, in the settlement courts, during the year 1871-72, besides a large number of miscellaneous revenue cases. Four revenue survey parties were at work in Delhi, the Derájat, and Bháwalpur, an independent State, under the Punjab Government.

The net land revenue of the Punjab, for 1871-72, was 1,763,587 *l.*

CENTRAL PROVINCES.

In the Central Provinces the settlements throughout the greater part of the districts have been sanctioned, and have been working for several years. There was a question whether the village headmen should be considered proprietors, or merely managers, and the Government has decided not to part with its proprietary right in the soil for the future. But as regards the district of Sambalpur, where a summary settlement has been arranged for 12 years, a promise had been made after 1857, to the gaotikas, or headmen, that they should receive proprietary rights in their villages. The settlement was made with the gaotikas of each village. The gaotikas is allowed to hold a home farm rent fee, and in perpetuity, to the extent of one-quarter of the whole assessment of the village. The remainder is held by cultivators, whose tenures are made secure, and who can only be ejected for not paying the Government demand.

Evils of land sales.

A great evil is arising in the Central Provinces, as in the Punjab and North West Provinces, owing to old families being dispossessed in considerable numbers to make room for money-lenders. Colonel Keatinge, the Commissioner, looks upon "the sale of ancestral land in execution of a money decree as a grave and serious political evil, by which the Government, in pursuance of a theoretical system of justice, at once opposed to the wishes and habits of the people of the country, is needlessly sacrificing popularity, which it can ill spare. Sale of land is a modern innovation, and one which is injurious in every way, in the present condition of the country."

The land revenue of the Central Provinces amounts to over half a million. Out of an area of 36,046,250 acres, a little less than a third is cultivated, and about another third is cultivable. The rate of assessment on cultivation is about 1 *s.* an acre.

MADRAS.

The system of land revenue in the Madras Presidency is entirely different from that which prevails in the north of India, the settlement being made with each ryot or cultivator, instead of with the proprietor or village community. The revenue unit is the actual field, and not the township or estate. Every ryot is

Ryotwar system.

secured in possession so long as he pays the revenue; and waste lands are available

able for the first comer who chooses to take them up on the prescribed terms. Sir Thomas Munro, who was Governor of Madras from 1818 to 1827, was chiefly instrumental in introducing this ryotwar system, and he looked upon its great advantage as being the strength and security it gives to the Government, by bringing it into direct communication with the great body of the cultivators. In the Northern Sarkhars, consisting of Ganjám, Vizagapatam, and Rájmahendri, the perpetual settlement was introduced; and there are a great number of Inams, or rent-free estates, throughout the Presidency of Madras, some of them held for upwards of 700 years. Throughout Malabar, too, there is proprietary right, the landlords receiving from 20 to 40 per cent. of the rent, and paying the rest to Government. The Malabar rule is to deduct 20 per cent. of the gross produce of the rice fields for reaping, the remainder being the available gross rent. From this, one-third is taken as expense of cultivation, and one-third as the cultivator's share. The remaining third is rent, to be divided between the proprietor and the Government.

Districts permanently settled.

Inams.

Malabar.

But throughout the greater part of the Madras Presidency, the system is ryotwar, and a maximum rent is fixed on each field, to be paid for good crops. If the crops fail, the rent is reduced; and there is an annual settlement on cultivated land, according as it is irrigated, or not irrigated. In 1837, it was ordered that there should be no increase of demand, on account of the growth of more valuable produce; and in 1852, another order was promulgated, to the effect that no ryot was to pay an additional tax on account of improvements, causing an increase of value, which were made by himself. During the government of Lord Harris, in 1854, very considerable reductions were made in the demand on land in most of the Madras districts, amounting to a total sacrifice of revenue to the amount of 259,000 *l.* This has led to a very considerable increase in the area of cultivation, a proof that the people were previously too heavily assessed.

Ryotwar system.

The original Madras surveys were exceedingly incorrect, and in many districts the land revenue demand was based merely on the unchecked statements of the village accountants. But in 1857 a new revenue survey was commenced in Madras, under the able management of Colonel Priestley, with the object of correcting the measurements of superficial areas, and of ensuring a fair and just assessment on each description of land, by a classification of the different fields in each village. The survey is conducted on the accurate English method, and is the only Indian revenue survey which is based on vigorous principles in every detail. The area to be surveyed was assumed at 60,000 square miles, or 38 millions acres. The village maps, on a scale of five chains to an inch, show all topographical details and the limits of every field, with a record of the nature of tenure, cultivation, present assessment, name of ryot, and source of water supply, if irrigated. Up to 1872, the survey of eight districts was completed, and eight were in progress. The completed area amounts to 32,122 square miles, besides 7,862 in the districts still under survey. The excess of assessable area brought to light by the survey ranges from 2 to 23 per cent., and in the completed districts the survey gives 24,000 square miles, which have hitherto only been counted as 21,500 for assessment purposes. The average assessment is 3 *s.* 9 *d.* per acre, and the addition of these 2,500 square miles to the taxable area represents an annual gain to the State of 300,000 *l.* The average size of fields is about two acres, and the approximate number measured and plotted in the eight completed districts is 7,000,000. The number of village maps that has been drawn is 15,546, and the average error per mile, shown by the test of comparing the work with that of the Great Trigonometrical Survey, is 7·61 feet.

Revenue survey.

The net land revenue of the Madras Presidency, for 1871–72, was 4,016,655 *l.*, on 16,877,509 acres; of which 13,858,661 were under dry cultivation, and 3,018,848 irrigated.

The Bombay Presidency did not comprise large territory subject to a demand on the land until a comparatively late period. As Akbar made the first regular settlement in the north of India, so Malik Ambar, the Abyssinian, was the great native administrator for the western side of the peninsula. He revived and confirmed the tenures of village communities (Mirasi tenures), and made village settlements for money payments. But this system was not adopted by the English; and in 1847 the present ryotwar system was introduced, under the

BOMBAY.

III. LAND REVENUE.

able superintendence of Sir George Wingate. It is a field settlement, but it differs from the Madras system, from the circumstance that in Bombay, instead of an annual settlement, the rent is fixed for each field for a period of 30 years. Each ryot may each year cultivate what fields he pleases, and give up what he pleases; the fields which are not taken up for cultivation being let annually by auction as grazing grounds. All joint tenures and common responsibilities are entirely abolished.

Bombay revenue survey.

The unit or basis of the Bombay Survey, an artificial field, or area, called "number," the size of which is fixed at what one pair of bullocks could plough up to double that size. This varies to from four to eight acres for rice cultivation, and from 20 to 40 acres for dry crops. The village boundaries are marked by stone pillars, and a series of detached earthen mounds are raised to demarcate the limits of fields or "numbers." The survey is a very rough measurement, and is useless for general purposes, or for the construction of correct maps; but the classing is a complicated and elaborate system, by which the

Classing.

value of each "number" is carefully ascertained. Numerous considerations are brought into account, which are classed under three heads, namely, distance from the village site, natural productive capability, and the nature of the water supply. When the classing is completed, the amount of the assessment is fixed, which is calculated with a view to leaving such a surplus to the cultivator as will render him capable of improving his circumstances, and extending his cultivation. The settlement was generally for 30 years. A new era of prosperity and progress was inaugurated in the Bombay Presidency by this settlement, the faults of which are on the right side, namely, assessments, which are said to be too low. The cost of collection is also said to be unduly heavy.

Results shown by re-settlements.

As the Bombay 30 years' settlement was commenced more than 30 years ago, the revision of several districts has been completed, and several reports on the re-settlement of various talukas have been received during the year under review. These reports enable an opinion to be formed on the results of the settlement, and on the effect it has had on the prosperity of the people. As examples, the three talukas of Bhímturi, Chándúr, and Indapur, may be taken, the one in the Púna, the second in the Nasik Collectorate. The two first were settled in 1841, and re-settled in 1871. Bhímturi is a long narrow belt of country lying along the banks of the Bhíma, to the south of Púna, and almost destitute of trees, except where thickets of babúls grow near the river banks. In 1841 the people were in an abject state of poverty and wretchedness. In 1871 the population had increased 39½ per cent.; the number of carts from 273 to 1,011, owing to the opening of new roads; the number of ploughs, 22½ per cent., and of bullocks, 19 per cent. In 1840 there were 527 wells in working order, now there are 727. The whole cultivable area is now taken up. The Chándúr taluka is situated between the Chándúr hills and the river Godávari. Since 1840 the population has increased 100 per cent.; the number of carts from 903 to 2,747; of bullocks, from 8,602 to 13,998; of wells, from 712 to 1,076. In 1840 the number of acres under cultivation was 95,867; it is now 110,223; and the new settlement increases the land revenue by 52 per cent. Both talukas, which may be taken as samples of many others, have now got all the cultivable land under cultivation. Indapur is notoriously one of the most unfavourable districts in the Deccan, owing to the poorness of the soil, and the small and uncertain rainfall. Yet, during the 30 years of the settlement, the population has increased 31 per cent., bullocks and farming stock, 20 per cent., plough, 28 per cent., and carts, 300 per cent. These instances may be taken as good evidence of the success of the system, and of the increasing prosperity of the people.

The net land revenue of Bombay, including Sind, amounted, in 1870–71, to 2,911,062 *l.*, and in 1871–72, to 2,744,060 *l.*

In North Canara the people consider that, as in Malabar, they have special tenures, that Government has no right to raise the demand on their land, and that it cannot be sold for arrears. Accordingly, the introduction of revised rates of assessment in the Karwar Táluk was the occasion of a general combination to resist payment and to test the validity of the Government claim by an appeal to the law courts. This interesting suit has not yet been finally decided.

BURMA.

In British Burma there is a vast excess of culturable but uncultivated land, and the rates of assessment, though varying with reference to quality of soil and

means

III. LAND REVENUE. BURMA.

means of transport, generally range low. The light land tax is, however, supplemented by the capitation tax peculiar to this province, while the rice duty falls wholly upon the producer, and is reported to be equivalent to a further enhancement of the land tax. The holders of the land in Burma are the actual cultivators, the extent of whose holdings averages about five acres.

The net land revenue of British Burma during the year 1871-72 was 551,531 *l.*

IV.—AGRICULTURE.

IV. AGRICULTURE.

CROPS.

THE season of 1871-72 was one of abundance and general prosperity in Bengal. The rains were extraordinarily abundant, and there was so much rain in the early months as almost to have obliterated the distinction between the hot and rainy seasons. At Calcutta there was the greatest rainfall on record. In 1871, though the rain unfavourably affected the crops in dry situations, they were generally abundant, and the jute crop was an extraordinary one. The indigo was much injured by the heavy rains in Bengal, but there was a good crop in Bahar. In 1872 there were very early dry crops. In Bahar the indigo cultivation has continued to increase, planters holding very extensive leases of villages, partly from the native landowners, and partly from the Court of Wards. But in Eastern Bengal, indigo has a good deal given place to the spread of jute cultivation. The question between indigo planters and ryots has entirely subsided. The rains gave rise to great floods in Central Bengal during 1871. The embankments on the left bank of the Bhágirathi, in Murshidabad, gave way, and the waters swept over Naddea and part of Jessor, causing serious loss, especially in cattle.

Weather in Bengal.

Crops.

Indigo.

Floods.

In the North West Provinces, the spring harvest of 1871 was an unusually good one, but the rainy season was most abnormal. It began early, continued late, and the fall was extraordinarily great. In 1868 it was 19 inches over the whole region on an average, in 1869 it was 37, in 1870 it was 45, and in 1871 as much as 54 inches. This caused very general injury to the autumn crops. Indigo was a complete failure, and the grain harvests were bad.

Crops in the N. W. Provinces.

In the Punjab there was a falling off in the area under cultivation, which is ascribed to the insufficiency or unseasonableness of the rainfall. In the spring crop the decrease was not in wheat, the cultivation of which slightly increased, but principally in grain; but the decrease in the acreage of the autumnal crop was more general than in the spring crop. From Oudh the returns are not at all reliable. In the Central Provinces the monsoon set in early, and abundance of rain fell; but in August there was a long break, and the autumn crops were poor everywhere. Generally the rainfall is the lightest nearest the western extremity of the Sátpura Hills, and increases as it passes eastward, being heaviest over the Wainganga watershed. This year the peculiarities of the rainfall were intensified. At the extreme west there was much less rain than usual, while the country to the east suffered from too much rain. But the poor harvest did not cause any great rise in prices. Improved means of communication between distant parts of the provinces have had a most material effect in mitigating local dearth, and has much reduced the inequalities of prices in different districts. In Chanda, thanks to importations from Chattisgarh, prices were lower than in 1870-71; and in the Narbada Valley, where the wheat crop suffered most severely, the price of wheat, the staple food of the country, was but slightly higher than in the preceding year. In the Haidarabad Assigned Districts (Berár) the rainfall was also unusually scanty, which led to much hardship.

Crops in the Punjab.

Oudh.

Central Provinces.

In the Madras Presidency the season of 1871-72 was unfavourable for agriculture, except in Karnúl, Chengalpat, Salem, Coimbator, the Nilgiris, and Malabar. The failure of the north-east monsoon on the coast was followed by a drought, which, but for prompt importations of grain from

Crops in Madras.

IV. AGRICULTURE.

Cattack, might have resulted in overwhelming distress. The rainfall was also very scanty in Madura and Tinnevelli. But the effect of good harvests for two previous years was felt, and the prices of grain declined.

Crops in Bombay.

In Bombay there was a scanty rainfall in 1871-72, and a generally unfavourable season. There was great distress in some districts, and in Khandesh it was necessary to grant very considerable remissions, as well as in Súrat, Broach, Sholápur, and Ratnagiri. In Sind the season was on the whole a satisfactory one.

Importance of meteorology.

Indian administrators are beginning to be impressed with the great importance of meteorological observations to agriculture; and a general system of inter-comparable registration is being introduced. Mr. H. F. Blanford was appointed Meteorological Reporter to the Government of Bengal, and a number of first-class stations have been established which have now furnished registers for five years. He also receives complete returns of the rainfall from 144 third-class stations. Dr. Townshend, who is in sanitary charge of the Central Provinces, and Dr. Murray Thompson, the Meteorological Reporter in the North West Provinces, have made their registers strictly comparable with those of Bengal, and the extension of knowledge thus gained is most important. The Punjab barometric registers are still unavailable for comparison. A series is taken at Lacknow by Dr. Bonavia. In Madras a number of first-class stations have also been formed under the supervision of Mr. Pogson the astronomer, and in Bombay, Mr. Chambers is in charge of the meteorological work. The question of placing the whole system of meteorological registration under one head, and, by introducing uniformity throughout India, of utilizing the combined work, is still under the consideration of the Government.

Connection between meteorology and agriculture.

The Lieutenant Governor of Bengal is impressed with the connection between meteorological registration and agriculture, and considers that there is much scope for inquiry as to the effect of peculiar climatic conditions on health and on the crops. Little is known of the course of the monsoons, of the circumstances under which the summer rainfall is thrown sometimes on the east, sometimes on the west of the Bay of Bengal; is sometimes abundant in Bengal and scanty in the North West Provinces, and at others, as in 1872, almost deserts Bengal, and falls in great quantities in Northern India. The questions whether the rainfall of Northern India is more connected with rain-bearing winds coming from the Bengal, and deflected by the Himalayas, or with those coming up from Western India, and whether the S. E. winds in Bengal, towards the end of the rainy season, and in October, have any connection with currents which cause the N. E. monsoon falling on the S. W. coast of the Bay of Bengal, will be solved by the efforts of meteorologists, with data carefully registered over a series of years. Mr. Blanford is already able to give a tolerably complete notion of the general barometric pressure over Northern India, throughout the year, as well as of the distribution of the mean temperature, deduced from observations extending over four years. The annual changes in temperature appear to correspond in general with the distribution and changes of mean pressure; the areas of low temperature coinciding with those of high pressure. As these interesting investigations advance, light will also be thrown on the normal law of the monsoons and of their anomalies, with reference to the distribution of rainfall, and its variation in different years; and eventually a very much more complete knowledge will be acquired of laws, which, in their influence on the crops, have a direct bearing on the well-being of the people.

Agricultural societies.

Efforts have been made during many years, both by the various local Governments, and by societies and individuals, to introduce improved methods of agriculture. The societies have effected much substantial good by conducting experiments, introducing new plants, and recording information on agricultural subjects, but they have never had funds to introduce practical operations on a large scale. They have, however, had the merit of acting as pioneers, and their labours have been fairly useful. As regards horticulture, they have done much; among other things, their introduction of potatoes, cauliflowers, and peas, has led to those vegetables being largely cultivated by the natives. The most valuable work of the Lahor Society has been the experimental cultivation of better kinds of flax and rhea fibre, the production of silk, and the introduction of the olive plant.

The

The Agricultural and Horticultural Society of India was established by Dr. Carey in 1820. It imported fruit trees, offered prizes for essays on the cultivation of indigo and sugar, and on the acclimatisation of foreign plants. At one time it had a farm of 160 acres near Calcutta, which was, however, given up. It now has an income of 3,000*l.* a year, including a Government donation of 500*l.*

Agricultural and Horticultural Society of India.

The Agri-Horticultural Society of Madras was founded in 1835. It has devoted itself to the encouragement of the cultivation of European vegetables, to the improvement of the cultivation of indigenous fruit trees, and to the introduction of new species. It largely imports and distributes vegetable and flower seeds and trees from other parts of India, superintends cotton experiments, and gives prizes for sheep and poultry.

Agri-Horticultural Society of Madras.

The Agri-Horticultural Society of Bombay was founded in 1830, and in the following year an annual grant of 300*l.* a year was given by the Government. In 1835 the society bought a piece of land at Suri, and laid it out as a garden, and in 1853 they established an experimental garden at Kirki, where, down to 1861, experiments were carried on at a loss of expenditure over receipts of 1,126*l.* But the only experiments of which a record exists are those conducted by Dr. Birdwood with cotton and the sorghum or great millet (*imphee*). In his Report, dated May 1861, Dr. Birdwood makes the following remarks with reference to the *imphee* experiments :—

Agri-Horticultural Society of Bombay.

Dr. Birdwood's experiments.

"I deeply regret the poor results of these experiments with *imphee* at Kirki, for I anticipated their success with pleasure. The rapid decay of the manufactures of India invests with the highest importance every attempt to increase the number of its exchangeable raw products. The most trifling articles of native workmanship are being replaced in the bazaars by similar wares from Europe; are being driven from the home markets by the sheer force of Saxon productiveness. Our best efforts, therefore, must be directed to counterbalance the decline in manufactures by a proportionate development of the agricultural wealth of the country; new raw exchangeable products must supply the place of each manufacture as it in succession fails, if the prosperity of India is to be sustained under the circumstances of her dependent and intimate intercourse with western civilisation."

As regards the society's experiments in cotton, Dr. Birdwood recorded the following very important remarks :—

Cotton experiments.

"Had twice as much been expended in India in cotton experiments as has actually been, I would still persevere with them. Such experiments are made out of a nation's superfluities, and should be undertaken under the sense that the most of them may fail, certain as it must be that at least one will succeed, or some collateral advantage be gained that shall a thousandfold repay all the accumulated outlay. It is on this ground that agricultural and horticultural societies have been, and economic museums are being, established over the world. It is anticipated that these institutions may for years carry on their operations in vain, but they are, nevertheless, supported (quite independently of their educational service) under the unfailing conviction that, in the end, some economic plant will be naturalised, and some staple brought to the manufacturer's notice through their agency, which shall so add to the wealth of the nation that all previous expenditure will be but as dust in the balance. We must regulate such expenditure, then, not so much by its immediate results as by our means. Attention should be turned to hybridization, as the most likely mode of establishing a larger staple of cotton in the parts of India beyond the influence of the sea and the two monsoons."

The Bombay Society was resuscitated, through the exertions of Dr. Birdwood, in 1859. When he became its honorary secretary it had only 29 members, and an income from all sources of 500*l.* a year. When he left, in 1868, the members numbered 153, with a fixed income of 1,235*l.*, besides special subscriptions. Dr. Birdwood's great work was the establishment of the Victoria Gardens and Museum at Bombay, including a complete botanical garden. The botanical garden was composed of exotic plants first introduced by Dr. Birdwood; of naturalised exotics, such as the cocoa-nut, jowari, tobacco, and many other plants, and of indigenous plants. A sum amounting to 36,000*l.* was raised by public subscription, entirely through Dr. Birdwood's exertions, for the laying out

Dr. Birdwood's labours.

Victoria Gardens at Bombay.

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out and decoration of the Victoria Gardens. It is much to be regretted that, after Dr. Birdwood left India, the botanical garden should have been destroyed, and that the Society should not have published a single report. Dr. Birdwood had arranged, before his departure, that the municipality should pay all the garden expenses, the Society merely undertaking the management, so that the Society now has ample means to devote to agricultural experiments. The Government grant of 300*l.* should certainly be continued, but Government should insist upon getting something in return. This would be secured by the appointment of an efficient secretary.

Agri-Horticultural Society at Lahor.

The Agri-Horticultural Society of Lahor was founded in 1851, for the collection of information respecting agricultural operations, to institute experiments, and to supply members with seed and plants. It has promoted the cultivation of flax, experiments in the cultivation of silk, and the distribution of seeds and plants. Among other plants, it has introduced the olive, the Chinese tallow tree, the Australian gum tree; and it has established a school for gardeners. A fifth agri-horticultural society and stock farm was started at Cawnpúr in March 1865, by Mr. Halsey, the magistrate. He has raised a crop of cotton from New Orleans seed from Dharwar, and has crossed the country sheep with half-bred Leicesters, and distributed 100 male lambs.

Stock farm at Cawnpúr.

Government gardens.

The Government Gardens at Calcutta, Saháranpur, Madras, Utakamund, Lacknow, and Bangalor, have also done most valuable service in the introduction and distribution of new plants and seeds.

Improvement of native agriculture.

The local Governments have themselves, from time to time, adopted measures to improve the system of native agriculture, and efforts are still being made in that direction. Agricultural processes in India are rude and simple, but they are the result of most careful empirical experiments, carried on for several thousand years. Shallow ploughing for light soils, in a climate where heavy rains alternate with strong solar heat, is the native principle, and is the correct one. The natives by no means think that they do not know their own business. The weakest point in native agriculture is the deficient use of manure.

Model farms in Bengal.

The plan of the Lieutenant Governor of Bengal, with a view to introducing improved methods of husbandry, is to make the Government estates, one or two in each district, models of revenue and agricultural management; the farms only to be of a few acres, so as to be within the ryot's competence to imitate. The Commissioner of Orissa has recommended the formation of a model farm, of 8 to 10 acres, on each canal, and there are to be others on the Midnapur and Son Canals. The actual cultivators are to be engaged to farm under supervision, leaving him in possession of his holding, with water and land rent-free. There is to be a model farm of 100 acres on the canal in Midnapur, with attached ryots' farms under supervision, and model villages are to be formed on Khás (Government) and Wards' estates. These plans are all calculated to be useful in the course of time, though results must not be expected immediately.

Saidápet farm at Madras.

In the Madras Presidency, Sir William Denison started a model farm at Saidápet, near the presidency town, which has been very successful and useful, under the able management of Mr. Robertson. The farm now consists of 250 acres in a ring fence. One great point established by Mr. Robertson is, that green crops for fodder can be raised at all seasons of the year. Lucerne, under irrigation, produces a large quantity of valuable fodder; horse grain can be raised under dry cultivation as a green fodder plant, and it improves rather than impoverishes the soil. Yellow cholum (*Sorghum vulgare*) has also been found to be an excellent fodder, more nutritious than turnips, and pays well for high cultivation. Mr. Robertson has also shown that it is only necessary to steep the grain for horses, which has hitherto been boiled, a most important discovery. It is difficult to overrate the value of these experiments which seem likely to make the green crops under dry cultivation in Madras, what root crops are in England, and thus to be the means of furnishing the Madras ryot with far better means of maintaining his cattle than he now possesses. General F. Cotton recommends that the model farm should be removed to a better side than is afforded at Saidápet, where it may become a place of instruction

instruction for agricultural teachers of every class. Both he and Mr. W. Robinson of the Board of Revenue, strongly urge that agriculture should not only be taught on the Government farms, but that it should be recognised as a science worthy of a professorship at the Madras University. Another plan is to start district farms under Mr. Robertson, at Coimbator, Belary, Tinnevelli, and Ganjám, subject to the supervision of the Board of Revenue. This is a question of the very first importance, which is likely to receive a large share of attention in the immediate future.

Bombay cotton experiments.

In the Bombay Presidency, attention has chiefly been turned to the improvement of cotton cultivation, and, in the Dharwar district at least, the introduction of American cotton has been a complete success. The number of acres under cotton cultivation in the whole Presidency in 1871-72 was 2,963,874, being a decrease of 772,397 since 1870-71 ; but it is thought that the yield per acre has been greatly understated in the returns, for the export has actually increased. Superintendents of cotton experiments are employed in Dharwar, Gujrát, Khandesh, and Sind. Selection of seeds has been carefully attended to, and a considerable quantity of first-class seed has been distributed. Hybridization has also been persevered with, and in Sind there is every prospect of a valuable crop between the American and Dharwar native. During 1871-72 there were 153 licensed steam presses, and 287 hand-presses.

Khandesh is at present the only district where there is a model farm ; it is not a financial success ; but the Cotton Commissioner has urged the advantages which would result from the establishment of permanent Government farms, by affording reliable information regarding the out-turn and money value of the various crops. One is under contemplation in Ahmadabad. Immense sums, in former years, were spent on cotton experiments, especially in the introduction of exotic seeds. But in order to increase the yield per acre, and to improve the quality of Indian cotton it is necessary to continue such experiments patiently for long periods, and to convince the growers of their value. They must be fully impressed, by continual experience, that a good market is ensured to them, on condition that clean and carefully picked cotton is produced; they must be induced to seek for and use good seeds, so that the staple may be improved, and so strive to produce a larger quantity per acre, through more careful and scientific cultivation.

Mr. Rivett Carnac, Cotton Commissioner.

In 1866 the Government made provision for the performance of some of these duties, in the Central Provinces and the Berárs, by appointing Mr. H. Rivett Carnac as Cotton Commissioner. In the following year (1867), 552,520 acres were under cotton cultivation in the Central Provinces, and 1,254,552 in the Berárs, out of 8,500,000 thoughout India. The exports from all India amounted to 1,500,000 bales, out of which 250,000 bales were from the Central Provinces and the Berárs. The great sheet of trap-rock of the Deccan provides the black soil which is so favourable to cotton cultivation, while the railways which traverse the Berárs to Nágpur offer facilities for export. Thus, in the valley of the Púna forming North Berár, 32 per cent. of the cultivated area is under cotton. But the exportation is checked to some extent, because there is a large and steady demand for home consumption. The native manufacturers of finer fabrics have been little affected by the introduction of piece goods from England, and the annual consumption in the Provinces is not less than 60,000 out of 120,000 bales. In the Berárs in 1867 the out-turn was 250,000 bales of 400 lbs. each, of which 207,000 were sent to Bombay for export.

Seed farms in Central Provinces and Berár.

Mr. Rivett Carnac's duties were to promote the introduction of foreign staples, and the improvement of the indigenous plant. Some of the landholders in Wurdah, were induced to raise cotton for seed on carefully selected garden lands. Fine "bolls" of cotton were then selected and supplied to seed gardens, and cultivators were impressed with the importance of selecting their seeds. By careful selection and careful cultivation of selected seeds, much can no doubt be done to improve the character of indigenous seed. The seed of the Hinganghát district in the Central Provinces is considered to be the best. Mr. Ashburne successfully improved the inferior cotton of Khandesh by introducing Hinganghát seed, and the cultivators of Nemar and

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the Berárs have also obtained supplies of it. Experiments for introducing exotic cotton have not been attended with any great success. In 1868 three cotton seed farms were established, one of 52 acres in the Wurda Valley near Hinganghát, a second of 98 acres near Amraoti in East Berár, and a third of 113 acres near the railway station of Shegáon in West Berár. The object of these farms was to test the effect on indigenous cotton of deep ploughing, of manure and irrigation, to watch the effect of hybridizing various species on the plan of Major Trevor Clarke, and to instruct the natives. But it seems to be necessary first, to convince them that they require instruction. When the Commissioners visited one of the model farms, he got the old head of a village on one side and said, "Now, Patelljee, tell me really what you think of all this." The Patell replied that the English gardener was an intelligent young man, that he worked hard and was not quarrelsome, and that considering that he knew nothing about it when he came, his cotton was not much worse than theirs. The sons of several respectable landholders were, however, being trained at the experimental farms, and it was hoped that they might hereafter disseminate the knowledge they acquired.

Cotton transport by railway.

Mr. Rivett Carnac also took great pains to improve the system of getting the cotton down to the coast. Daily supplies arrived at the railway stations much in excess of the quantity that it was possible to send off by train each day. The yards became full to overflowing. The Cotton Commissioner established cotton yards at 12 railway stations, acres upon acres were covered with cotton bales, divided into squares and streets, every compartment with its watchman and fire engine, every bale entered in a register, and waiting its turn for loading. Order was thus established where there had been chaos. At Khámgáon, in Berár, there are two large factories for cleaning cotton, and three for full pressing bales with steam power. Throughout the Central Provinces and Berár, there are 21 full and 98 half presses. The half pressing system is chiefly in use, which takes up less space than the dokra or old native bale, but requires repacking for export.

Cotton, Central Provinces and Berárs.

In 1871–72, the area under cultivation in the Central Provinces was 13,365,902 acres, of which 667,226 acres was under cotton. The number of bales exported was 43,297, of which 24,432 were full pressed, and 39,754 half pressed and dokras. In the Berárs, 1,478,648 acres were under cotton, and in one part of Akola the natives were taking to the cultivation of New Orleans. The two experimental farms continued to be worked, but with little success. One of them has been converted into a model farm for the cultivation of all kinds of produce likely to do well in the Berárs. In June 1871 a cotton farm was established near Bulandshahr, in the North West Provinces, consisting of 93 acres, which were sown with Hinganghát, Burni, and Juri (Berár) country cotton, and New Orleans. It is in charge of a Scotch gardener.

Cotton farm at Bulandshahr.

Jute fibre.

Rhea fibre.

The jute fibre, in Bengal, is very largely grown, and its export to Europe and America has been developed, of late years, into a trade of important dimensions; while the rhea fibre, which is known to be vastly superior to jute, has failed to become a profitable object of cultivation. The reason of this is well known and an effort is being made by Government to overcome the obstacle. The rhea fibre of India is the same as the China grass (*Boehmeria nivea*), a stingless nettle with a perennial root whence rise 9 or 10 straight slender stems to about six feet, from the exterior of which the fibre is extracted. It is a native of Asam, and of Rangpur, in Bengal, where it is cultivated by the fishermen, near their huts, for making nets. Fresh sets of stems will yield them four or five harvests a year, but the manual extraction of the fibre is too laborious to make the cultivation, on a large scale, remunerative. For this object machinery is essential. Rhea is experimentally grown in the Kangra Valley, in the Dehra Dun, in Saháranpur, in Bhágulpur by Mr. Sandys, a planter, and elsewhere.

Growth of rhea fibre.

Value of rhea fibre.

This rhea plant produces, when properly manipulated, one of the strongest known vegetable fibres, three times as strong as the best Russian hemp. There is practically an unlimited demand for it in English and American markets at prices from 30 *l.* to 80 *l.* a ton. It is a plant which requires much moisture and a rich soil; but it will grow in many parts of India, and is susceptible of rapid propagation from cuttings; yet, and although the merits of the plant have been known

known for the last 60 years, it is not successfully cultivated. Volumes have been written upon it, the Government and the Agri-Horticultural Societies have striven to encourage its growth and to develope a trade in its fibre, but all attempts have hitherto failed. The failure is entirely owing to the absence of suitable mechanical appliances for the separation of the fibre and bark from the stem, and of the fibre from the bark, and to the heavy cost of effecting such separation by manual labour. Thus the only real obstacle to the development of an extensive trade in this article is the want of suitable separating machinery. Existing flax and hemp-preparing machinery has failed where the rhea fibre is concerned. On the one hand there is an unlimited supply, on the other an unlimited demand, with only a single link wanting to connect one with the other. At last, in 1869, the Government of India resolved to offer prizes, sufficiently large to attract the attention of the first European machinists, for the best inventions for securing the manufacture of such rhea fibre, at 15 *l.* a ton, as would fetch a price averaging 50 *l.* a ton in the English market. The prizes offered were 5,000 *l.* and 2,000 *l.* for the best and the second best inventions. The trials were to have taken place at Saháranpur in 1872; but, owing to the cost and risk of sending expensive machinery to India, only one mechanist, Mr. Greig, appeared in the field. His machine did not altogether fulfil the conditions, but he was given a *douceur* of 1,500 *l.* It is now proposed to have the trials in England. There was some difficulty in taking this course, owing to the necessity for using the stems in a green state, such as they would be in on a plantation. It has been found, however, that China grass is grown on an estate near Marseilles, and the proprietor will undertake to supply a sufficient quantity for the trials, in a green state. This obstacle has thus been overcome, and there is every reason to hope that the ablest mechanists will take the matter up, and that the great object will at last be gained.

Machinery needed for rhea fibre.

Reward for the best machine.

Trial at Saháranpur.

Trials of machinery for rhea fibre to be made in England.

Sericulture has received some attention during the last year; and a most interesting account of silk in India has been written by Mr. Geoghegan, in consequence of representations made by the Silk Supply Association. The advantage of a further development of silk industry in provinces in India where it already exists, and of its extension to other provinces, was obvious; and the first thing needful was to collect information on the subject, so as to make a general review of all industries connected with silk in India. The East India Company took great pains to foster the production of silk. The planting of mulberries was urged on the Zemindars in Bengal, and in 1769 a staff of reelers was sent out from Italy to set on foot, in the Bengal filatures, the system pursued at Novi. The first silk prepared in the Italian method reached England in 1772, and Bengal silk soon became an important article of export to England. When the trading operations of the East India Company came to an end in 1833, its connection with silk culture ceased. At that time 956,453 lbs. were exported. There were then 11 head factories in Bengal, each with a commercial resident, with filatures throughout the district to which the cocoons were brought. An attempt was also made to foster the production of silk in Madras by Government aid in 1793, but it was abandoned in 1798. The Company effected great improvements in the reeling and drying, but none in the culture of the mulberry, or in breeding and rearing the worms; and since the trade has passed into private hands no active measures have been taken for the promotion of this industry. The quantity exported from Bengal has not varied in the last 30 years, being about 1,500,000 lbs.; but the price has nearly doubled. The cultivation in Bengal is mainly carried on in the districts of Rájsháhi, Birbhúm, Meldah, Murshidabad, and in Asam. In Rájsháhi there are 34 filatures owned by Europeans, and 63 by Natives, having 5,760 basins, and employing 10,000 hands. The yield of raw silk is 5,000 maunds, and 150 square miles are under mulberry cultivation. In Bírbhúm the silk industry, of an annual value of 160,000 *l.*, supports 15,000 persons. In Asam the mulberry is grown in small patches; two kinds of worms are reared, and a fine white silk is produced. A very considerable quantity of tasar silk is raised in the Chattisgarh country, in the Central Provinces, the worms being fed on the sál tree. The only other province where sericulture is practised to any extent is Mysor, where the

Sericulture.

Silk cultivation fostered by the East India Company.

Silk trade in Bengal.

Silk experiments in Madras.

E. I. Company's improvements in reeling silk.

Silk exports.

Present state of sericulture in Bengal.

In Asam.

In Mysor.

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mulberry gardens occupy 18,443 acres, or 31 per cent. of the cultivated area. Here it is a profitable culture, the value of the silk annually produced being 55,000 *l.*; the cultivation is said to have been introduced by Tippoo.

Silk experiments.

In other parts of India sericulture may be said to have been confined to experiments which have hitherto been more or less abortive. In 1854-56, Mr. Bashford, the Superintendent of the Sarda filature in Bengal, made some experiments in crossing; and Mr. Fox, in 1867, began an experiment in Sháhabad, but the trial came to an end after three years. Signor Lottei, in 1859, drew attention to the munga worm of Asam, as being capable of yielding silk, with care and better reeling, to compete with that of China; but his application for a grant of rent-free land to improve the munga worm was refused. In Bombay, Mr. Baker introduced worms from Mysor into Dharwar, 50 years ago, and the cultivation took root for a time, but cotton has since driven silk out of the field. The exertions of Signor Mutti at Púna, between 1838 to 1846, though under Government auspices, ended in failure, and there was a similar result in Khandesh. More recently a small experimental farm was established by Messrs. Dymes at Ussur, in Madras, in 1868; and Signor de Vecchi erected a filature near Bangalor, purchased cocoons largely, took much trouble to improve the native worm, and endeavoured to acclimatize the Japanese species; but he has since left the country, discouraged at the results of his efforts. In the Punjab, several experiments have been tried by Mr. Cope and others, and the late Sir Donald McLeod took a deep interest in them. The Maharajah of Kashmir has also taken steps to encourage sericulture in his dominions. But it is only in Asam, Bengal, and Mysor that silk is produced to any extent.

Silk experiments in Bengal.

In Bombay.

In Madras.

In Mysor.

In Punjab.

Wild silk.

Dr. Birdwood on wild silk.

Captain Hutton on wild silk.

There is, however, another branch of the industry connected with the wild spinning insects of the jungle, called tasar and eria. In 1858, Dr. Birdwood proposed the utilization of the wild worms found in the Bombay Presidency; and, in 1856, Captain Hutton, of Masúri, represented the existence of certain wild silk worms in the Dehra Dun; but no useful result attended his experiments. He, however, maintains that Masúri is a capital place for rearing the ordinary silk-producing moths; and in 1871 he prepared a most valuable monograph for the Government, on the known Bombycidæ of India. The tasar insect is found all along the Sub-Himalayan range, and in forest-covered hills to the south of the Ganges, and it has, for centuries, been an article of trade. It feeds on the sál, the jujub, a *Terminalia*, and other forest trees; and the seed is purchased from the jungle people by the rearers, who raise the worms on trees, and keep guard on them with pellet bows. The tasar silk is much used in native fabrics, but the yield is diminishing as cultivation extends.

Tasar silk.

Prospects of sericulture.

The numerous unsuccessful experiments are certainly discouraging to some extent; but it is certain that several parts of India are well adapted for sericulture; and judicious steps should be taken to promote it. With this object the Madras Board of Revenue (February 1872) would limit cultivation to localities where it is still carried on with some success, and would distribute mulberry seed to the best growers gratis. They would go so far as to establish nurseries in carefully selected centres, to hatch and improve the breed by selection and distribution gratis, but would not extend Government operations to reeling silk.

Date palm.

Attention has been given by Dr. Bonavia, the Superintendent of Science in Oudh, to the cultivation of the date palm in that province, where it has been found to grow well. The paper by Mr. Edwards, on the cultivation and preparation of the date, has been translated into Urdi, for distribution among the natives to whom seeds are given; and an arrangement has been made with the Political Resident in the Persian Gulf for a yearly supply of seeds and cuttings of the date palm for planting in Oudh. In October 1872, a favourable report was made on the progress of this cultivation.

Products of the mountains.

While cotton, sugar-cane, indigo, jute, opium, and cereals are grown on the plains of India, the mountainous parts yield valuable crops of coffee, tea, and chinchona. Many hundreds of acres have already been cleared in these hill districts, where rows of coffee and tea plants have taken the place of tall forest

forest trees and tangled undergrowth. The means of acquiring waste lands were rendered easy by the rules published in August 1862. By them no greater quantity can be sold in one lot than 3,000 acres, and no lot is to be sold unless it has been previously surveyed and marked out. The upset price is not to be less than *Rs.* 2. 8., nor more than 10 rupees per acre of waste land.

Coffee.

The extension of coffee cultivation in the hill districts of Southern India has been very remarkable. It was commenced experimentally in the Wynaad in 1840, and in 1862 there were 11,386 acres under cultivation in that district alone. In 1865 Wynaad coffee cultivation had increased to 200 estates, covering 14,613 acres. The export in 1860-61 was 19,119,209 lbs., worth 337,436 *l.*; and coffee cultivation has thus become a very important and increasing source of wealth. In 1871-2 the value of the coffee exported had risen to 1,383,416 *l.*, and the quantity to 56,889,888 lbs. In Mysor there were 112,840, and in Curg 76,275 acres under coffee cultivation in 1871-72, and the quantity exported was 3,747 tons.

Tea.

Tea cultivation is carried on in Kángra, Garhwal, and Kamaun; and in Asam, Cachar, Silhet, Chittagong, Darjiling, and Chota Nágpur. In Dehra Dun there are 11 tea gardens; in Kángra 21; in Kamaun 38; and there are no less than 47 tea companies. In Darjiling there were 62 gardens in 1871-72, covering 12,305 acres; and the out-turn of tea was 2,665,821 lbs. With a fair chance, Darjiling tea could drive Chinese tea out of the markets of high Asia. Its growth in Sikkim employs 43 Europeans and 9,493 natives. In Asam 31,303 acres are under cultivation, yielding 6,257,643 lbs. of tea; in Cachar 23,081 acres, with an out-turn in 1872 of 5,406,400 lbs. In Silhet 21,408 acres, giving 4,641,659 lbs.

Chinchona.

Chinchona cultivation, which was introduced into the hill districts of India from South America in 1860, has now passed through all the great difficulties and perils of its experimental stage; and has assumed its place among the important permanent measures of the Government. Unlike tea and coffee, the Chinchona plant had never before been cultivated. It was brought direct from the wild forests where, in an incessant struggle for existence with other trees, it grew under many disadvantages. Everything, with regard to its cultivation, had to be discovered by actual experiment. The total expenditure has been 61,719 *l.* The return represents a value which is simply incalculable and without price; but the mere interest on the outlay will soon be highly remunerative. Setting aside the use made of the bark in India itself, the value of which is already very considerable, upwards of 2,500 *l.* will be annually realised from sales in the London market of the Nilgiri bark alone, to which the Darjiling and other sales must be added. Mr. Money, and other planters, are also beginning to export bark on a large scale. There are now 2,639,285 plants in the Government plantations on the Nilgiri hills, without counting those of private planters. The largest trees are 30½ feet high, and over 3 feet in girth round the trunk. The area covered by the plantations amounts to 950 acres; and the bark under cultivation is much richer in quinine, and the other febrifuge alkaloids, than the wild bark of South America. During last year, 7,295 lbs. of excellent bark were sold in the London market, realising prices from 2*s.* 3*d.* to 2*s.* 10*d.* the pound; and 65,688 lbs. were supplied to the local manufactory, making a total value of 6,500 *l.* This year 20,000 lbs. will be sent home for sale. There are 591,600 growing trees of red bark on the plantations, and if an eighth of these be cut down every year bark will be annually available, yielding 10,323 lbs. of febrifuge alkaloids. The alkaloid is manufactured on the spot by Mr. Broughton, the quinologist, in an exceedingly cheap form, and is supplied to the medical stores. Hundreds of fever patients are thus annually cured. The grand object of this beneficent measure will thus be obtained by the provision of an abundant supply of the febrifuge, at so cheap a rate as to be within the means of the population at large.

At Lingmulla, on the Mahábaleswar Hills, in the Bombay Presidency, a Chinchona plantation was formed in February 1864. In April 1872 there were 7,460 plants, but have been injured by want of sufficient water and heavy gales of wind. There are also 20,000 plants in the nursery ready for planting out.

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The results of analysis of the bark by Mr. Broughton are on the whole encouraging.

Darjiling Chinchona.

At Rungbi, near Darjiling, 2,000 acres are under Chinchona cultivation; the bark has been sold in the London market at prices ranging to 1*s.* 3*d.* per lb.; and enormous quantities of bark have been stored for local manufacture. A chemist has been appointed to reside at the plantations, with a view to an efficient febrifuge being manufactured at so cheap a rate as to be within the means of the natives of Bengal, who will thus participate in the benefits which their brethren in Madras are already enjoying. In the Sittang division of British Burma Chinchona plantations have been formed by Captain Seaton, the conservator of forests, at two places, about 3,700 feet above the sea, one to the north and the other to the south of the Thoukyeghat river, east of Tounghu. The main plantation now contains 354 plants fairly established. Chinchona plantations have also been formed in Curg, and in the Bababaden hills in Mysor; and the tree is grown with success in Wynaad, on the Palnai hills, in Tinnivelli, and in Travancor.

Cardamoms.

Cardamoms grow wild in the forests of the western ghauts, and the yield, in the forests of Mysor alone, was 26 tons in 1870-71, valued at 17,000 *l.* Instructions were given in 1871-72 for the demarcation of such tracts of jungle as were favourable for the growth of this spice, and coffee planters are beginning to turn their attention to its cultivation. Several other useful products have been introduced into India during recent years. The ipecacuanha plants, several cases of which have arrived in good condition at Calcutta during 1871 and 1872, will be cultivated in the Sikkim Terai. Carolina rice has been introduced into Bengal, Mysor, Bombay, and Madras, and at the Saidápet model farm its cultivation has been very successful. The Cochineal insects have been imported into Mysor from Teneriffe. They have taken kindly to the acclimatised cactus; the climate is suitable, and the experiment promises well.

Ipecacuanha.

Carolina rice.

Cochineal

Fisheries.

In 1869, Lord Mayo's Government came to the conclusion that the time having come when the great importance of obtaining exact information as to the natural capabilities of the land and water of the vast empire of India is beginning to be fully and clearly appreciated, an effort should be made to utilise to the utmost the fishes of the rivers and coasts as sources of food to the population. Dr. Day, who was already well known as the author of an important work on the fishes of Malabar, was therefore appointed to make inquiries respecting the fisheries throughout India on a comprehensive system, and to submit reports on any matters relating to the utilisation of the natural resources of the rivers and seas, which seemed to him to deserve the attention of the Government. Dr. Day commenced his investigations in Orissa, and went thence to Burma. He has also reported upon the Punjab, North West Provinces, Sind, and Madras. He treats of the fresh water fisheries of India under five heads: namely, wasteful destruction, the fishermen, the fisheries, the fish, fish in an economic point of view, and the effects of a fish diet. There seems to be a concurrence of opinion from all parts of India that there is, at present, a wasteful destruction of fresh water fish, either by poisoning, or by the use of meshes so small as to catch all the small fry. The invariable rule, among fishermen of every caste and creed, is to get everything they can, irrespective of the season, entirely oblivious of next year's supply. The consequence is that the waters are insufficiently stocked. Dr. Day has no doubt that, if the fishes were allowed fair play, an increased supply would be the result. He recommends the prohibition of trapping and snaring the breeding-fish during the monsoon months, by regulating the size of the meshes of nets, or the interspace between pieces of rattan or reed. This would permit the breeding fish to deposit their ova, and return to the rivers from which they ascended for that purpose. He would also forbid poisoning and other wholesale methods of destruction; and would provide fish ladders at the weirs or anicuts.

Dr. Day and his reports.

Dr. Day on fresh water fisheries.

Fish as a source of food supply.

The large fish-eating population gives great importance to these questions. The whole of the indigenous population of Burma eat fish. In Canara, Mr. Thomas, in his interesting and exhaustive report, mentions that 760,160 out of a population of 839,688 are fish eaters. In Orissa fish is almost universally eaten, and very largely in Bengal, the North West Provinces, and the Punjab. A series

A series of questions, drawn up by Dr. Day, has been circulated, in order to elicit opinions and to obtain materials for a more comprehensive report. Meanwhile, the Secretary of State has drawn attention to the conclusions of the Sea Fisheries Commissioners in England, who recommended unrestricted freedom of sea fishing, while, even in estuaries, they reported that the natural increase of fish is so rapid and great as to be little affected by man's destructiveness. It has also been enjoined that, in framing regulations for the fisheries, care must be taken that they are of such a nature as to interfere as little as possible with the habits and welfare of the very poor class of people engaged in earning a livelihood from fishing.

Views of the Home Government on Dr. Day's fishery reports.

A general review of the whole of the results of Dr. Day's inquiries will hereafter be made by the Government of India, and a decision will then be formed on his recommendations, and on the most advisable measures for the maintenance of supplies of fish.

General review of the question of fisheries to be made hereafter.

The breeding of stock has received much attention in all parts of India. Great pains have been taken, especially in Madras, to improve the native sheep, and sheep have been introduced into the Punjab and the North West Provinces, from England; while shows and prizes have stimulated the breeding of cattle. As regards horses, the Madras and Bombay armies depend on the open market for their supply, but in Bengal Government studs have long been established to supply the army in that Presidency with horses. In 1794 a very unsuitable locality was selected in Tirhut for the purpose of breeding stock, and in 1808 Mr. Moorcroft, an experienced veterinary surgeon, was sent out as Superintendent of Studs. He organised the department, sent officers to Persia and Arabia to buy stallions and mares, and in 1819 he himself penetrated across the Hindu Kush to purchase Turcoman horses, and, as is well known, this intrepid explorer died of fever near Balkh. From time to time commanding officers expressed general dissatisfaction at the remounts supplied by the stud, and a Committee, appointed in 1851, exhibited very unfavourable results; but in 1860 Lord Canning recommended the continuance of the system, to which Sir Charles Wood agreed, but at the same time adduced arguments in favour of making India self-reliant in respect of the supply of horses.

Breeding of live stock.

Supply of horses for remounts.

Government studs.

Mr. Moorcroft.

Stud Committee of 1851.

The studs are in two divisions, the central at Pusa, Baxar, Ghazipur, and Kurunthedi; and the North Western at Hapur, Saháranpur, and Karnal. In the Central Division the mares purchased or bred by the Stud Department are lent to farmers, and covered by Government stallions; and the farmers are bound to sell the foals to the Department at eight months old. The foals so purchased are sent into various depôts, until they are old enough to be presented as remounts. In the North West Provinces the mares belong to the farmers themselves, are registered by Government, and are served by Government stallions. There are about 18,000 mares on the register, and 328 stallions belonging to the stud. There is also a home system under which both stallions and mares belong to Government. There was a home stud at Hissár which was discontinued in 1842, and in 1865 it was re-established at Karnal, where there are English mares sent out in 1866 and 1867, some of the stallions sent out by the Secretary of State, and several mares from New South Wales. Twenty stallions were sent out to India, by the Secretary of State, every year from 1861 to 1865, 13 in 1866, 19 in 1867, 10 in 1868, 2 in 1870, and 6 in 1872. The Government of the Punjab also gives much encouragement to the breeding of horses, providing stallions in the best breeding districts, and offering prizes for the best animals exhibited at the different agricultural meetings.

Stations of Government studs.

Asami system.

Zemindari system.

Home system.

Punjab system.

An annual supply of 750 to 800 horses is required for the Bengal army, but the Stud Department is not able to supply more than 500. In 1868 there were almost unanimous reports as to the badness of the remounts, and Lord Mayo appointed a second Committee to inquire into the general management of the Government studs. It was found that the Department cannot supply the number of horses required, that the prices of its horses are exorbitant, that it has extinguished private enterprise, and has failed to improve the indigenous breed of horses. In consequence of the report of the Committee, the Government of India resolved to abolish the asami system and to establish a new breeding stud in the Punjab on the home system.

Insufficient supply of horses.

Stud Committee of 1868.

Unfavourable report.

Resolution of Government of India.

IV.
AGRICULTURE.

Views of the Home Government.

The Home Government, however, have come to the conclusion that the proper direction in which the efforts of Government should tend is towards the encouragement of private enterprise. Various excellent breeds of horses have existed in India, in Katiwár, in the Bhima Valley, and in the Punjab; and, with proper assistance and encouragement, the breeding of horses for the market would probably again revive as a profitable enterprise. India also receives foreign supplies from the Persian Gulf, Central Asia by Kabul, Australia, the Cape, and England. Instead of Government studs, it is proposed that stallions be furnished in the best breeding districts, that prizes be offered for promising brood mares and young stock, and that liberal prices be given for suitable three or four year old colts. With such judicious encouragement it is anticipated that the ancient and successful practice of private horse breeding in India will revive.

In the Bombay Presidency a good deal is already being done in this direction. In Ahmadabad there are now nine Government stallions, and their employment is stated to have produced most favourable results; in Ahmadnagar there are two, in Belgaum two, in Dharwar three, in Khandesh eight, in Sátára four, and in Sind seven. In Ahmadabad there are also three Government bulls, the services of which are much appreciated by the breeders; and Mr. Borradaile, the Collector, zealously promotes horse and cattle breeding in his district. In all the districts the Government stallions are much sought after, and their services are fully appreciated by stock breeders. Annual horse shows have been held at Ahmadabad since 1869 with great and increasing success. At Sírúr, also, near Púna, there is an annual horse show in January, when prizes are awarded for the best young stock, the produce of Government stallions, and for mares in foal. Country breeders readily attend the show, and it promises to become, year by year, more attractive. Another annual horse show takes place at Dehwari, in Sátára, at which prizes are awarded. In the Punjab, where there are 57 Government stallions, the Lieutenant Governor has determined to make Ráwalpindi a centre of operations connected with horse breeding; and another will be formed on the Deràjat frontier, where there are many first-class mares of the Baluch and Sagar breeds. A horse fair is held at Ráwalpindi, where every inducement is offered, by means of prizes, to breeders of the best animals, and at the last fair in March 1872, besides numerous remounts for the native cavalry, 21 gun horses were purchased for the artillery. It is expected that, in a few years, the Ráwalpindi horse fair will produce a good supply of artillery horses. There are cattle fairs at Hissár and Sarsa, the centres of the grazing districts in the Delhi region, at which upwards of 25,000 people assemble, some of them coming from distances of 200 miles. The most successful cattle show in South India is that which was periodically held, for a succession of years, at Nellor, through the influence of which the breed of cattle was certainly improved. It was begun by Mr. Dykes, the Collector, who took a deep interest in it.

Horse shows.

THE
RAINFALL
OF
INDIA
Scale of Statute Miles
Lines of equal Rainfall
Local Annual Rainfall in inches
ARABIAN SEA
BAY OF BENGAL
Gobi or Great Desert
Plateau of Tibet
Indian Desert
The Panjab
Plateau of Malwa
THE DECCAN
Laccadive Islands
Maldive Islands
Andaman Islands
Nicobar Islands
CEYLON
GULF OF CAMBAY
GULF OF SIAM
Mouths of the Indus
Mouths of the Ganges
Mouths of the Mahanadi
Mouths of the Godavari
Mouths of the Krishna
Mouths of the Irawadi
C. Negrais
C. Comorin
Pt DE GALLE
Pulicat L.
Kaveri R.
Plain of Chatisgarh
BOKHARA
KOKAN
KASHGAR
YARKAND
KHOTAN
BALKH
KABUL
LAHORE
MULTAN
KILAT
DELHI
AGRA
AJMIR
HAIDARABAD
KARACHI
LACKNOW
GORAKHPUR
ALLAHABAD
JHANSI
JABALPUR
NAGPUR
SURAT
BOMBAY
NASIK
HAIDARABAD
BELARI
BANGALOR
MADRAS
CANNANOR
CALCUTTA
LASSA
BATANG
BAMO
MANDELAY
RANGOON
MULMEIN
BANKOK
YUEN KIANG
KIANG HUNG
TALI
YUNNAN
GOAKHCHES
15 INCHES
30 INCHES
75 INCHES
60 INCHES
Trel. Saunders, Geog.

V.—IRRIGATION.

IRRIGATION is a necessity for a large section of British India, is of incalculable importance to the cultivators over a still larger area, and is unnecessary only in two limited bands of territory, where the rainfall is excessive. The map, showing the amounts of rainfall by tints of colour, exhibits this very clearly. In the north-west corner of India there is an arid region, including all Sind and half the Punjab, where the normal annual rainfall is less than 15 inches. Here irrigation is essential to the existence of the people. Next, there are two zones of dry country, with an annual rainfall between 15 and 30 inches. One surrounds the arid region on the north and east, in a belt from 100 to 200 miles wide, and has been named by Dr. Brandis the Northern Dry Zone; it includes Delhi and Agra. The Southern Dry Zone is in the peninsula, extending from Nasik to Cape Comorin, at a distance from the two seas. These dry zones also stand in absolute need of irrigation. The next region has a rainfall between 30 and 60 inches, and includes the upper part of the valley of the Ganges, Central India, and the eastern coast of the Madras Presidency. Here irrigation is also much needed, and great distress has been caused by the want of it. The fifth region has a rainfall between 60 and 75 inches, and comprises the deltas of the Mahánadi and Ganges, and the lower part of the Ganges valley. In this more favoured belt, irrigation may be looked upon as a luxury, often useful, but not absolutely necessary, except in extraordinary years. Finally, there are two belts of excessive rainfall, where irrigation is unnecessary, the one extending from the mouth of the Irawadi, along the east coast of the Bay of Bengal, up the valley of the Brahmaputra, and along the skirts of the Himalaya; the other along the west coast of the peninsula, from the seashore to the summits of the ghauts.

Necessity for irrigation in India.

Zones of rainfall with reference to need of irrigation.

Arid zone.

Two dry zones.

Zone of from 30 to 60 inches.

Zone of from 60 to 75 inches.

Zones of excessive rain.

The Governments of India have always, and especially of late years, given much attention to the supply of water for the irrigation of those parts of the country which most need it. Gigantic works have been undertaken, and many have been completed in the arid region, in the dry belts, in the less dry tracts, and even in the belt where artificial supplies are more or less a luxury. Still very much remains to be done, and the progress of our efforts to supply the various regions with water for irrigation, and so to secure the inhabitants from famine, will be best considered by dividing the subject according to the principal river basins. First in order will come the basin of the Indus, the abode of the first civilised race in India, and consequently the region where irrigation was first practised: it includes an area of 372,700 square miles. Then the Ganges River basin, covering 391,100 square miles, and that of the Mahánadi. Next the basins of the Tapti and Narbada; and, finally, those of the rivers emptying themselves into the Bay of Bengal, on the eastern coast of the peninsula.

Irrigation works undertaken by Government.

Irrigation considered with reference to river basins.

The Indus basin divides itself into two parts, the first comprising the Punjab, where the six rivers spread out like a fan; and the second and lower being the valley of Sind.

THE INDUS BASIN.

The relative requirements and needs of the Punjab, as regards irrigation, are very clearly exhibited by the rainfall map. When the six rivers issue from the Himalaya, they come upon a narrow belt at their feet, where the supply of rain is plentiful. The rivers then enter the northern dry zone, where they spread wealth and fruitfulness along the banks; but at the same time, in the course of ages, they have cut deep down through the soil, and left high land on either side, the valley being from 10 to 50 feet below the central plateau. The fertility is consequently confined to the low valleys, four to ten miles wide, over which the rivers meander from side to side in the course of ages, and are only checked by the steep scarps which they have themselves gradually formed. The low land by the rivers is called *khádar*, and the high and sterile tracts on either side *bángar*. The *bángar* lands form the doabs between the rivers. Though the soil is fertile, cultivation must depend upon the scanty rain, unless it be supported by artificial irrigation. Large portions of the *bángar* are

Requirements of the Punjab.

Moist and dry zones.

Physical conformation.

Khádar land.

Bángar land.

V. IRRIGATION.

Arid zone.

covered with grass or brushwood, or are entirely waste. The general surface of the Punjab slopes southward from the Himalayas at a considerable gradient, and as the rivers converge, the depth of the river beds below the plain is reduced and eventually the *bángar* is lost sight of, and low *khádar* extends right across between the rivers. But here the rivers enter the arid region, where there is scarcely any rain, and which would be a scorched and uninhabitable waste if the water from the Himalayas was not led over it to convert it into a garden.

Kinds of irrigation. Wells. Inundation canals. Permanent canals.

The different kinds of irrigation required by such a country suggest themselves. Near the foot of the Himalayas, and in the upper valleys and khádar land, where water is under 25 feet from the surface, irrigation is supplied from wells. In the low tracts, where the rainfall is less than 15 inches, water must be led from the rivers during the season of inundations. The perennial canals, which can only be constructed at vast expense, and when great engineering skill can be obtained, are necessary for the high and rainless tracts of the four doabs, where wells are too costly, and to which the inundation waters could not be brought. These doabs have excellent soil, and only require water to become fertile.

Native irrigation. Multan inundation canals.

During the period of native rule, well irrigation and that from inundation canals were alone available. By these canals the district of Multan, between the Sutlej and the Chenab, where rain hardly ever falls, is converted into a succession of beautiful gardens shaded by date palms. There is a burning sun above and canals flowing below. During the winter the water of the rivers is not sufficiently high to enter the canals, some of which are artificially excavated, while others are merely channels abandoned by the rivers; but as the rivers rise in the spring, from the melting of Himalayan snows, the water gradually enters the channels, which obtain their maximum volume in summer; so that, when water is most needed, when the sky is brass and the earth iron, the inundation canals from April to October produce luxuriant crops. The corn, before yielding its grain, is twice mown down as fodder for cattle, and then ears, and produces abundant harvests. The mangoes are only second to those of Mazagon, and oranges and pomegranates grow in profusion.

System of clearing Multan Canals.

In Multan the main canals were considered the property of the Government, but the annual repairs and clearances were done by the people. The *kárdar* of the district demanded as many labourers as he considered necessary, according to the extent of the clearance required. The landholders then formed *punchávats* or committees, and fixed the portion of the general burden to be borne by each village, with a scale of fines for defaulters. The system was worked by *cher* or statute labour. The plan of distributing the water varied. On some canals the number of hours *per diem* was fixed, during which Persian wheels were to be worked, or the side channels to remain open. On others, bunds were allowed to be thrown across for a certain time, at fixed points.

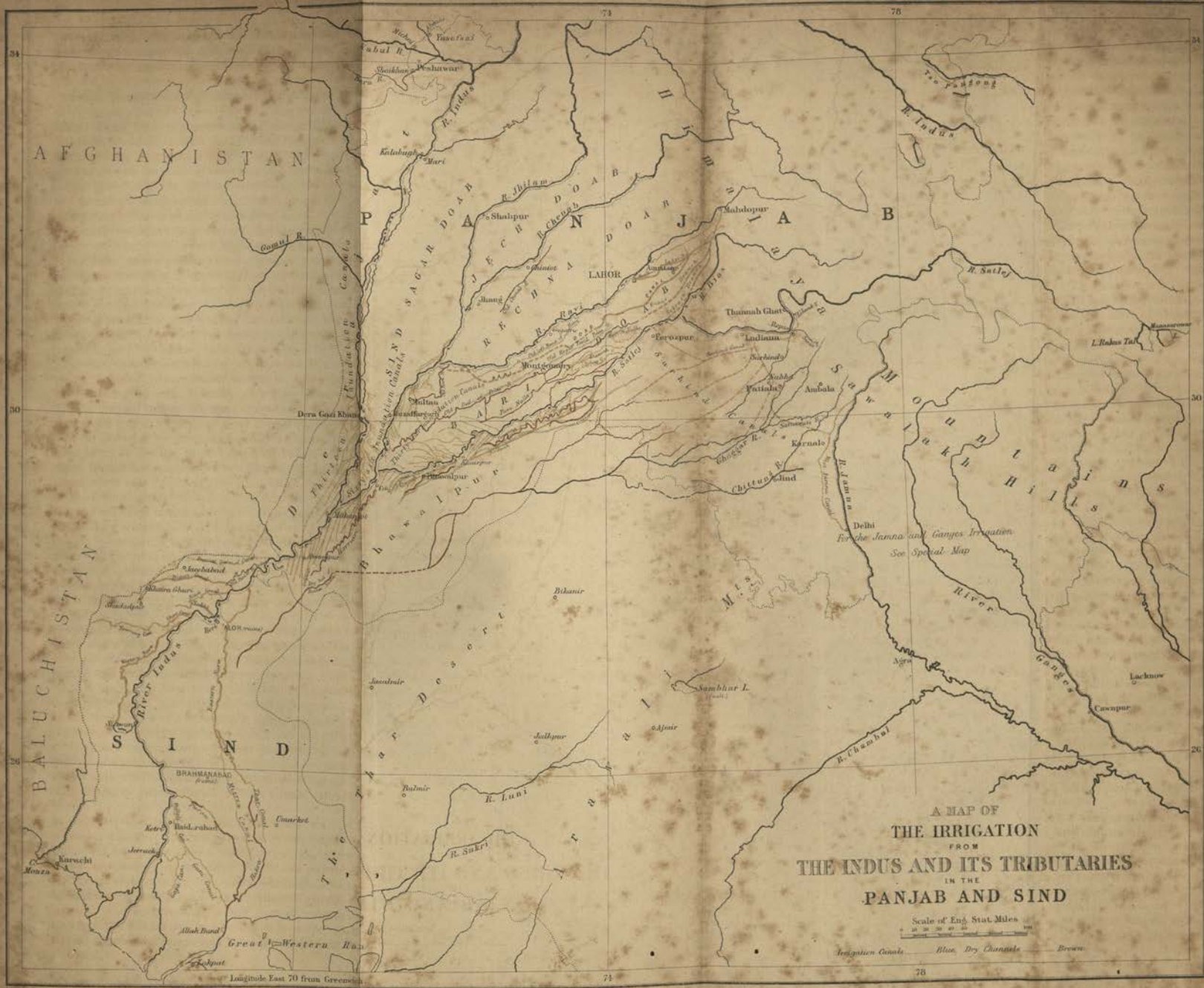
Defects in canals.

One great trouble was that the waters of the rivers were apt to recede, leaving large sand banks at the canal mouths, which had to be cut through, or a new head made; then the channels were irregular, without any provision for the escape of surplus water, and the excavated earth was generally heaped up irregularly on the banks, which were never made with any slope, yet on them the safety of the country from inundation often depended. The Afghan rulers, left by Aurungzebe, did much to establish this system of irrigation, and Saween Mull, who was governor from 1821 to 1844, so enriched himself from the plenteous harvests of Multan that he left a private fortune of 900,000*l.*

Gugaira inundation canals. Muzaffargarh inundation canals.

But the inundation canals were not confined to one district. Taking advantage of natural ravines, some rude canals existed in Gugaira, and other districts of the Bari Doab, above Multan. There was a more complete system in the rich country of Muzaffargarh, between the Chenab and the Indus, the land under the influence of which was one sheet of cultivation. There the proprietary right was vested in zemindárs, who were hereditary landowners, while under them were the owners of wells and Persian wheels, called *chukdars** and *sillundars*,† who brought the land under cultivation. These paid a portion of the

* From *chuk*, a wooden frame sunk as the foundation of a well. † From *sillun*, bricks.



A MAP OF THE IRRIGATION FROM THE INDUS AND ITS TRIBUTARIES IN THE PANJAB AND SIND

Scale of Eng. Stat. Miles

Irrigation Canals — Blue. Dry Channels — Brown.

the produce, called *lichh*, to the zemindárs, and also a settled rate to the Government. A man was said to own, not so much land, but so many watercourses or Persian wheels. The actual cultivators rent from the owners of wheels or wells, and the canals were kept clear of silt by statute labour.

Shahpur and Derájat inundation canals.

In the Shahpur district there were and are several inundation canals, drawing their supply from the Jhilam.

In the Derájat, on the right bank of the Indus, the canals run parallel with the river, and fill during the periods of inundation. There were 12 of these canals, with an aggregate length of 291 miles. The landowners arranged the distribution of water among themselves for the khurreef crops, which are all grown on canal lands.

Bháwalpur inundation canals.

The native State of Bhawalpur, on the south side of the Satlej, is also dependent on inundation canals, its *khádar* land, bordering the river, being 10 to 12 miles wide. In a former age such inundation canals were conducted from all the five rivers of the Punjab, and traces of them are perceptible, with ruins of cities and villages on their banks.

Colonel Anderson.

Our duty has been to maintain and improve these native works, and Lieutenant (afterwards Colonel) Anderson was appointed to superintend them in 1850. For purposes of administration they are divided into the Upper Satlej, the Lower Satlej and Chenab, and the Indus Canals.

Upper Satlej canals.

The Upper Satlej Canals are in the central part of the Bári Doab, above the Multan district. Here the face of the country is covered with traces of former life and prosperity; the cause of decay being due to the loss of water supply, for the River Bias once had an independent course to the Chenab, fertilizing the land on either bank; but in 1790 it was diverted into the Satlej, and its old bed became a dry ravine, with a complicated network of deserted watercourses.

Old bed of the Bias.

Colonel Anderson's attention was early given to this waste. Inundation canals have been brought into it from the Sutlej.

Khanwah Canal.

The Khanwah Canal leaves that river at a point 20 miles below Ferozpur, by a mouth 90 feet wide, narrowing to 20 feet at the end of its length of 55 miles. A great deal of water used to force its way out of the canal at weak points, and flowed back to the Satlej, inundating the country. The head of the canal also gave much trouble. It was thoroughly cleared out in 1850, and a jetty was built to turn in the water, but in 1852 a waste of sand, a mile wide, intervened between it and the Satlej. A new channel had to be opened, and it has since been much improved. The Khanwah is of the utmost value to the agriculture of the Gúgaira district, irrigating 157 villages, and much labour and money have been devoted to its improvement. By 1858 these improvements had been completed, and during the following years several *rájbuhus*, or supply channels, were constructed in connection with it, with masonry outlets, which were paid for by the cultivators.

Sohág Canal.

The Sohág Canal leaves the Satlej a little below the mouth of the Khanwah, to irrigate the country between that canal and the river. It is 73½ miles long, and has been very much improved of late years; the channel straightened, and masonry outlets constructed.

Kutora nulla.

The Kutora is a nulla to the north of the Khanwah canal, and Colonel Anderson proposed that the Sutlej water should be conveyed to it from opposite Ferozpur, and so into the old bed of the Bias.

Para nulla.

Another natural ravine, or watercourse, is the Para, which is a continuation of the Sohág. It is connected with the old Bias by a channel called Nawabbin, a name derived from a Nawab of Multan, in the last century, who carried the supply of the Para into the Bias, and thence into the Multan district, for the purpose of providing a navigable passage for his wife, who was travelling down country in a boat. The aggregate length of the Upper Satlej canals is 213 miles.

Comprehensive scheme for improving inundation canals.

Colonel Anderson's scheme, with reference to the Upper Satlej system of canals, was to establish a control over the river by the construction of a masonry dam at Ferozpur, so as to prevent silting up at the canal heads, and he would have provided one main head for the old Bias, the Khanwah, Sohág, and Para. A great scheme, based on that of Colonel Anderson, for the complete irrigation of the central part of the Bári Doab, by inundation canals, was submitted to the Government of India in January 1872. The area of the country affected by this project is 11,000 square miles, of which 3,200 are on the left bank of the Satlej, and partly in the Bháwalpur State. The aggregate length of the

V. IRRIGATION.

channels is 1,143 miles on the Bári Doab side, and 80 on the left bank. The estimated outlay is 3,560,786 *l.*, of which 633,056 *l.* is the cost of a dam across the Satlej at Ferozpur, with headworks, such as was originally proposed by Colonel Anderson.

Multan canals.

The Lower Satlej and Chenab Division comprises the canals which fertilise the Multan district. Since the annexation they have been cleared by statute labour every year, the slopes and headworks have been improved, and the distribution carefully supervised. There are now 39 canals, with an aggregate length of 632 miles, of which only 11 miles have been added since the commencement of our rule. They irrigate 120,000 acres, belonging to 410 villages.

Indus canals.

The Indus canals include those of Muzaffargarh and the Derájat. There are 66 in the former district, drawing their supplies from the Indus and Chenab. The canals have hitherto been kept in repair and cleared by statute labour.

Derájat canals.

The canals of the Derájat aggregate a length of 592 miles, 108 of which have been constructed since the commencement of our rule. The annual clearances are almost entirely effected by free labour. During 1871-72 much trouble was given by the high flood of the Indus, and some of the embankments were breached, causing extensive inundation and damage to crops.

Dera Gházi Khan canals.

A scheme is now under consideration for the improvement and extension of the irrigation in the Dera Gházi Khan district, and another for the irrigation of part of the Sind Ságar Doab, by taking off a supply of water from the Indus where it runs through a rocky channel near Kalábágh.

Sind Sagar project.

Swat River project.

Yet another project for the irrigation of the Yusafsái part of the Pesháwar valley received the sanction of Lord Mayo's Government at the instance of Sir Richard Pollock, then the Division Commissioner. The Pesháwar valley is encircled by mountains with the exception of a small opening towards the Indus, and comprises 2,400 square miles, divided in two by the River Kabul, which enters the plain at Michni. It is joined midway by the Swat river, flowing from the north-west, and entering the plain at Abazai, and the Bara from the south-west, entering the plain at Shaikhan. The distribution of water from these three rivers is a constant source of feud among the villagers. Four or five villages have a joint right in one irrigation cut, and are together responsible for its maintenance, the cut being supplied by feeders from the rivers. Yusafsái is

Pesháwar irrigation.

Swat irrigation.

the portion watered by the Swat river to the north-west. The Swat on entering the plain divides into many channels, widening through rich meadows, fringed with willows and poplars, which all unite again before joining the Kabul. But the supply is often insufficient and irregular, and the remedial scheme is to throw

Swat Canal.

a bund across the Swat at Abozai, in the gorge. A main channel will be led from above the bund, 18 miles long, with 121 miles of distributing channel. The cost of this "Swat River Scheme" is estimated at 52,700 *l.*

Bháwalpur irrigation.

But the most instructive system of inundation canals is that within the native State of Bháwalpur, which has been created by the Political Agents, Major Minchin and Captain Grey, and their able engineer, Mr. Barns, during their administration of the country for the young Nawab, who is a minor.

Description of Bháwalpur.

Bháwalpur extends for 300 miles along the left banks of the Satlej, Chenab, and Indus. It consists of the *khádar* land along the river banks, averaging a width of 10 miles; the *bángar*, a strip of land running along the whole length of the State, parallel to the *khádar*; and the desert to the south. A large part of the *bángar* is now covered with sand drift from the desert. The desert tract dates its origin from the drying up of the Ghaggar, the ancient Saraswati, which once flowed through the heart of the country from the Sawálikh mountains to the Indus, between Rori and Uch, parallel with the Satlej.

Ancient channels.

The waste dry channel, traversing the Bháwalpur *bángar*, has ruins of old towns dotted along its banks. It is the old bed of the Ghaggar, (the waters

The Trewanna.

of which now hardly ever reach beyond Bhutner after the heaviest rainfall), and is locally called the *Hakra* and *Sankra*. For the first 80 miles of the Bháwalpur State there is a vast branch of the Hakra, parallel with the River Satlej, called the *Trewanna*, pursuing a tortuous course between the Hakra bed and the Satlej. Once it fertilised a vast tract, but for centuries it has received no water from its parent stream. It had, however, been supplied with water at the rise of the Satlej by numerous excavated channels from the river to elbows of the Trewanna, where, in its windings, it approached

approached nearest. By these means lengths of the Trewanna were just able to keep alive some of the land it once fed plentifully. But, owing to long neglect, the feeding channels and the Trewanna itself silted year by year, and more and more land fell out of cultivation. The people took to rapine for a living, and at last the whole north-east district of Bháwalpur became a mere population of cattle lifters.

The Ford-wah.

This was the state of affairs when Major Minchin, the Political Agent, assumed charge of Bháwalpur in 1867, during the minority of the Nawab. He borrowed 15,000 *l.* at 12 per cent. interest for 10 years, and dug a canal called the *Ford-wah*, which issues from the Satlej, and extends parallel to it, and about 20 miles from it, for 105 miles. Irrigation channels are led from the canal, and it does good work, though of course it is unable to replace the vast irrigation of the Trewanna. It was then resolved to restore the Trewanna, as far as possible, by clearance and by leading feeders into it from the Satlej. These works are now in course of construction with the best results. Below the tails of the Trewanna and Ford-wah, in the Khairpur district, commence six small canals, which extend to the district of Bháwalpur Their complete remodelling is a projected work for next winter.

Khairpur small canals.

The Vahind.

Below Khairpur, which is one of the districts of the Bháwalpur State, and 20 miles north-east of the city of Bháwalpur, there was a large natural dry channel, called the *Vahind*, a feeder of the Sankra. It was proposed to restore water to this channel by feeding it from the Satlej when in flood, and this was partially done in 1871–72 with great success. A new canal, 20 miles long, has also been cut to feed a ruined channel called the *Khanwah*, and the old portion of which has been re-modelled and extended. From the city of Bháwalpur to the junction of the Satlej and Chenab, a distance of 30 miles, there are numerous small native inundation canals, and one large channel, the *Nowrunga*, which has been completely re-modelled, and fed at a high level by a head 20 miles long. The *Kutubwah*, *Sultanwah*, and *Mobarikwah* are perennial canals with their heads below the winter zero of the river, leading to Ahmadpur, the former capital of the State.

The Khanwah.

The Nowrunga.

Ahmadpur canals.

Bháwalpur Chenab canals.

The principal canals from the Chenab are the *Minchin-wah*, *Barnswah*, and *Sadikwah*, large channels 100 feet to 200 feet wide, irrigating a vast area by an endless network of branches. Below the junction of the Satlej and Chenab, and parallel to the latter river, there is a great dry channel winding down the remaining length of the Bháwalpur State, called *Hurriari* or "the fertiliser." All the branches from the Chenab system of canals are tailed into the Hurriari, but their volume is inadequate to afford a useful supply to that great channel. In 1871, however, a spill from the Chenab into the Hurriari, at high flood, was carefully utilised, and it is now proposed to make a permanent cut along the line which the spill took, and so give water to the Hurriari. From the Indus there are nine canals, seven of them old native works, and two constructed by the English. The Indus alone, of these rivers, pours its flood over the face of the country in July and August, the waters uniting to run into the eastern Narra, a great channel belonging to the Sind system.

The Hurriari.

The Indus canals.

Bháwalpur system of clearances.

The system of yearly clearances has been placed on a thoroughly sound basis in Bháwalpur. The exact quantity due from each farmer is accurately calculated on correct principles, and he is then made responsible for the clearance along the extent of the canal which rightfully falls to his share. All this useful work has been done within the last four years; and the English Political Agency has thus raised a revenue which they found at 12 lakhs paid in grain, to 19 lakhs (or 190,000 *l.*) paid in cash. This is a measure of the blessings conferred upon the country by Major Minchin and his coadjutors.

Results of English work in Bháwalpur.

System of inundation canals.

The important system of inundation canals from the Punjab rivers, upon which the very existence of the inhabitants of a vast area in the rainless region depends, was administered by the people themselves, under Government supervision. The whole of this class of canals within British territory, has now been placed under the regular management of the Irrigation Department. Until recently there was no direct canal income, the returns appearing in land revenue.

Doab permanent canals.

The region for state canals presented far greater difficulties. This region, in the Punjab, comprises the Bári Doab between the Bias and Rávi rivers, the Rechna Doab between the Rávi and Chenab, the Chuch Doab between the

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Chenab and Jhilam, and the Sind Sagor Doab between the Jhilam and the Indus.

Bari Doab canal.

The Bári Doab was considered the most important, as containing Amritsar, and being the cradle of the Sikh nation; and a great canal was projected for its irrigation immediately after the annexation of the Punjab. One small permanent canal already existed in the Bári Doab. It was called the Husli Canal, and was constructed in about 1633, by order of Shah Jehan, not for irrigation, but to supply fountains at the royal gardens of Lahor. When the Sikhs acquired the sovereignty, they led a branch to Amritsar, to supply the sacred tank. The canal followed the natural line of drainage by a tortuous course of 110 miles, and passed through low land which least required irrigation.

Husli canal.

Details of Bâri Doab canal scheme.

The great English project was to bring a central canal down the high land of the Bári Doab for 247 miles, receiving its water from the Rávi, where that river debouches from the lowest of the Himalayan ranges, at Madhopúr. Here there is a deep cutting through the high bank of the Rávi. The canal then crosses two mountain torrents, and gains the table land, striking into its wild wastes, to vivify and regenerate the ruined cities and villages, and rejoin the Rávi, 56 miles above Multan. At the thirtieth mile a branch diverges, to fertilise the most arid part of the Doab, and reaches the ancient city of Kassur (84 miles), and from this branch a smaller channel is diverted eastward to near the Satlej, opposite Sobráon (61 miles). At the fifty-fifth mile another branch is taken off, to spread fertility down to Lahor (74 miles). The original plan was that the canal should be navigable throughout, the slope being counteracted near the head by boulder rapids, and afterwards by masonry falls. The total length, including branches, was to have been 466 miles. The main channel, at its head, was to be 120 feet broad, and 5½ feet deep. The total cost was originally estimated at 530,000 *l.*, and the work was entrusted to the late Colonel Dyas, with Lieutenant Crofton as his assistant. They commenced work on the first 30 miles in 1850.

Head works.

Mountain torrents.

Kussoor branch.

Sobroân branch.

Lahore branch.

Dimensions of canal

Cost of Bâri Doab canal.

In 1856, it was found that the cost of the canal would not be under 1,350,000 *l.*; and efforts were concentrated on the completion of the main line, down to where the Lahor branch breaks off. Water was first admitted into the Bári Doab Canal on the 11th of April 1859, and it soon became evident that the declivity of the bed, in the upper parts, was too great, the consequence being extensive channelings out in the sandy tracts, and deep holes below the falls. It was also found that the discharge from the Rávi had been overrated, and that the permanent supply was less than the works were designed to carry. It became evident that to utilise the channels a supply must be drawn from other sources. The minimum supply of water from the Rávi had, in 1848, been calculated by Sir Robert Napier at 2,753 cubic feet per second. It turned out to be only 1,414, and the maximum 2,529. The sources from which the full quantity can be obtained are the river Bias, or the Rávi further down. Estimates for remodelling the canal were ordered to be framed in 1868.

Water first admitted.

Defection in Bári Doab canal.

Re-modelling of Bari Doab canal.

The re-modelling was commenced, and in 1870 it was resolved to complete the Kassur and Sobráon branches, but without navigation. The total cost of the project had, by that time, risen to 1,260,250 *l.*, and when completed, with the branches, to 2,000,000 *l.* Important mechanical workshops were established at the head works at Madhopur, and in 1867 the formation of a water course was sanctioned, to supply motive power for the machinery.

Works at Madhopur.

Present state of Bari Doab canal.

During 1871-72, the re-modelling of the central line, and the excavation of the branches, made good progress. The aggregate length of the main canal is now 212 miles, with 692 miles of *rájbuhas*, or distributing channels. The net receipts for water were 39,606 *l.*, or 3 per cent. on the outlay; but there is also an indirect income estimated at 26,142 *l.* An important question arose with regard to the rates to be charged for water. Originally these rates were uniform for all crops, being *Rs.* 2. 6. 8. per acre for water given in flow, and *Rs.* 1. 3. 4. for water lifted. After much consideration, it was resolved that the rates should vary for different crops, and be divided into four classes; the scale being for sugar cane, 6 rupees; for rice and gardens, *Rs.* 4. 12.; for wheat, barley, cotton, and indigo, *Rs.* 2. 8.; and for other cereals and pulses, *Rs.* 1. 8. per acre. In 1870 there were 279,210, and there may now be 300,000 acres receiving water from the canal; and it is estimated that the value of the crops is eleven times the price charged for water.

Receipts.

Water rates.

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Irrigation has not yet been provided for the other Punjab Doabs. In 1862, Mr. Bourne, the managing director of the Oriental Steam Company, proposed a scheme for a joint stock company to construct a canal from the Chenab, and his plan was warmly supported by the Lieutenant Governor; but in 1864, the Supreme Government informed Mr. Bourne that they were not prepared to give him any definite encouragement. Colonel Crofton, however, pointed out places whence a permanent supply of water could be obtained from the Chenab. In 1860, Mr. Purdon had a project for a canal down the Sind Ságar Doab, from near Mari on the Indus, to the same river about 70 miles above Mithankot, a distance of 220 miles. The reason for the cessation of necessary investigations with reference to these projects, which were commenced in 1864, is stated to be the difficulty of obtaining qualified engineers for the service. A rough reconnaissance was, however, made of the river Chenab last year, near Chiniot, in the Jhang district, with the view of ascertaining the feasibility of drawing off water there, for the irrigation of the lower part of the Rechna Doab. As a ridge of rocks here crosses the river, it is thought that a channel might be taken off at small cost, yielding a perennial supply of water. There are 7,000,000 of acres in the unirrigated Doabs waiting for water, and to swell the revenues of the State; while, in the district of Gurgaira, lying in an unfortunate position in the Bári Doab, below the point to which the English canal reaches, and barely within reach of the inundation canals, only 66,000 acres are watered out of 500,000. Certainly much remains to be done.

Chenab scheme.

Sind Ságar scheme.

Rechna Doab scheme.

Needs of part of the Bári Doab.

One great work has, however, been recently commenced in connection with Punjab rivers. The Satlej or Sirhind canal project was submitted by Colonel Crofton in 1862. At the point where the water parting separates the Jamna from the Satlej, there is an interval where the classic Saraswati once watered the land of Kuru, on its way to the Indus, but where now the streams have ceased to be perennial, while the desert fast encroaches on the once rich kingdom of Thanesar.

Sirhind canal project.

In 1840 Sir William Baker ran a line of levels across this region, from Karnal to Ludhiána, finding the greatest elevation above the Jamna and Satlej to be 68 feet, and he afterwards carefully examined the courses of its river beds. In 1841 the same officer reported that the introduction of a stream from the Satlej into an immense cultivable tract, now desert, was physically practicable. The immediate commencement of this work could not be authorised, but Mr. Thomason, then Lieutenant Governor of the North Western Provinces, declared that Captain (now Sir William) Baker had been the successful pioneer in this little known tract, and that he had suggested plans which should not be lost sight of, and which hereafter might mature into works of great national value. Twenty years afterwards Colonels Dyas and Crofton again brought the project to notice. The water parting between the Jamna and the Satlej runs close to the former valley, and no streams between those two rivers derive their waters from the snows of the Himalayas. They are all, therefore, devoid of a perennial supply, hence the necessity for drawing one from the Satlej. The site for the head works was fixed by Colonel Crofton, on an eastern branch of the Satlej, just below the mouth of the Lohind Torrent, the main stream being diverted into the eastern branch by a bund at Thannah Ghat. There will be great difficulties in taking the canal across the Sursa Torrent, which will be overcome by a dam with sluices for the passage of floods, and piers sufficiently high to retain the canal supply. The canal, with its branches, will then be taken into a hitherto neglected tract, where it will water 783,000 acres, of which more than half are in the native states of Patiala, Jind, and Nabha. The total length of channels was to be 554 miles, of which 100 was for navigation only, and the project included a navigable communication, 205 miles long, from the Satlej at Ferozpur to the Western Jamna Canal above Karnal. The estimates were completed and submitted for the orders of Government in February 1872, the total cost being calculated at 2,980,427*l.*, of which sum 1,062,216*l.* were to be paid by the three native states whose territory will be irrigated from the canal, the British Government having agreed to divide the available water supply of the Satlej rateably among the irrigable lands within reach of the canal, irrespective of the states within which they were situated, a proportional share of the cost being borne by each state. The first 37 miles have

Sir William Baker's surveys.

Colonel Crofton's scheme.

Head works for Sirhind canal.

Sursa torrent.

Sirhind canal. Length.

Cost.

Work commenced.

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have already been commenced; materials have been collected and preparedfor masonry works, and upwards of 322,000,000 of cubic feet of excavation wer executed in the main and diversion canals, during the year 1871–72.

SIND.

Arid zone.

After the rivers of the Punjab unite at Mithankot the Indus flows for 450 miles to the sea, through the arid rainless country of Sind. Here irrigation is absolutely essential to cultivation. What the monsoons are to other parts of India, the inundation of the Indus, and the canals which distribute its waters, are to Sind. This country is an alluvial plain, almost every portion of which has been swept by the Indus or its branches, at some time or other. Traces of ancient channels are to be met with in almost every direction. The land is highest at the river banks, and slopes away from them on either side. The reason of this is that the river brings down a greater quantity of silt than its stream, moderated in velocity on the nearly level plain, can carry forward. The silt is deposited, and the result is that the bed and banks of the Indus are continually rising. The process is sure, but very slow. Dr. Lord calculated that the Indus annually brings down silt sufficient to form an island 42 miles long by 27, and 40 feet high. When the bed attains a certain height the water falls over, and the river, at intervals of several centuries, changes its course. It has slowly worked its way from east to west. In 710 A.D., the invading Moslems found a Hindu dynasty at Alor, and the ruin of Alor was caused by the Indus moving to the west. Then the seat of Government was moved to the City of Brahmanabad, the ruins of which are now 45 miles from the river.

Indus.

Difficulties of Sind irrigation.

It is this movement which causes one of the difficulties in Sind irrigation. The river is continually carrying away the banks in one direction, and forming new land in another. This process never ceases; and the falling masses of earth make a noise in the distance, resembling volleys of musketry. From Sakkhar to the sea the distance is 300 miles, and the banks are permanent only at three places, Sakkhar, Jharrak, and Kotri. At Sakkhar the river rushes through a narrow gorge in the limestone hills, forming a perfect rapid during the inundation, with a descent of above four feet. At Jharrak the river is not contracted, but there is rock on either side. At Kotri hills approach on both sides, and the clay soil is deep and tenacious. The rise of the Indus commences in May, and subsides at the end of August.

Sind canals.

The canals are excavations carried away from the river in an oblique direction, so as to secure as great a fall as possible. They vary from 10 to 100 feet in width, and from 4 to 10 feet in depth. None, in former times, had their heads at the three places where the river bed is permanent, and none are deep enough to draw off water from the river, except during inundations. They resemble natural watercourses more than canals. From the position of the canal heads they are liable to two evils; either the river encroaches and tears away the banks, or it recedes and forms a great sandbank across the head.

The canals cut through the high margin of the river banks, and conduct the water to lower levels, down an inclined plane, where, under favourable circumstances, it flows out on the surface. Thus the cultivation may be divided into three classes: first, the land which can only be irrigated by using Persian wheels to raise the water; secondly, land irrigated by machinery when the canal is low, but over which the water will flow naturally when the canal rises; thirdly, land watered altogether without the aid of machinery. Some of the largest canals were at first natural channels, others were dug by various rulers of Sind. They are rude and simple expedients which attain their object, though less perfectly and at greater cost than if they had been constructed on sound principles. The care of the canals consists in clearing out the silt deposited by the inundations, or washed away from the sides. This was done by statute or forced labour.

Sir W. Baker in Sind.

Captain (now Sir William) Baker was appointed to the superintendence of canals and forests in Sind, in 1843, and he surveyed the canals and made several valuable reports, especially on the Eastern Narra Canal, on the left bank of the Indus.

General Walter Scott. Abolition of Canal Department.

In 1844 he made over charge to Captain (now General) Walter Scott, who was the first engineer to take charge of the canal clearances; but in 1849 the Canal Department was abolished, and the Collectors were left without assistance; the records were locked up, and much previous labour was wasted. The canals deteriorated,

rated, becoming less wide and less deep. Canal mismanagement culminated in 1853. In 1851 Captain Blois Turner reported on their condition, and in 1856 a separate officer was appointed as Superintendent of Canals. Since that time Colonel Fife has been the most prominent irrigation officer. In 1860 the Canal Department in Sind was again abolished, and in 1870 it was once more re-organised under Colonel Merriman.

Mismanagement. Captain Blois Turner. Colonel Fife.

Sind Canals may be divided into three classes: first, those of great extent and importance, running 70 or 80 miles; second, those of smaller extent, and branches; third, the distribution channels.

Classification of Sind canals.

On the western bank, commencing from the north of Sind, near Sakkhar, the chief canals are the Sind, Ghar or Larkhana, Bigari, and Western Narra. All but the Bigari are probably, judging from their tortuous courses, natural channels kept open artificially.

Canals west of Indus.

The Sind canal opens from the main stream of the Indus, on the right bank, 21 miles below Sakkhar. Its total length is 66½ miles, and at its tail it divides into three branches, the Mutti, Kadu, and Mihshuda, the former connecting the Sind with the Larkhana canal. The course of the Sind is very tortuous, and the fall deficient.

Sind canal.

The Ghar or Larkhana leaves the Indus 23 miles below Sakkhar, and has three heads or channels of supply. It is very tortuous, and the fall is thus much reduced. Several smaller canals branch from it, until it divides into two branches, the Núr-wah and Nowrung, and loses its name. The Nowrung again divides into two, the Andra-wah and Muldussi, and these are again divided into several smaller channels.

Ghar canal.

The Western Nara leaves the Indus 27 miles below Sakkhar, and at 40 miles from the head it is 200 to 300 feet wide. This canal is less winding than the Ghar, and the fall is consequently greater. The country is well cultivated on either side of it, and the villages are numerous. It returns to the Indus at Sehwan.

W. Nara canal.

The improvement of these canals, especially of the Ghar, was commenced in 1856 under Captain Ford. A channel of supply was cut from the Western Nara to the Ghar called the Ford-wah, which augmented its supply and raised its level. The head of the Ghar was also improved. The Ford-wah is considered to have been one of the most successful works in Sind. It raised the level of the Ghar three feet, and increased its volume enormously, thus converting a large area from wheel to natural flow irrigation. The lower part of the Western Nara was of course somewhat injured, but not in proportion to the gain of the area dependent on the Ghar.

Ford-wah.

The Bigari canal, also on the right bank of the Indus, is the most interesting in Sind.

Bigari canal.

In 1844 it was described by Lieutenant Maclagan as having a total length of 48 miles, with a fall of 35 feet. The head was on a side channel, at a distance of nearly seven miles from the Indus. For the first 23 miles it passed through a country covered with jungle, but presenting frequent traces of former cultivation. It then entered a district where much water was taken by means of Persian wheels, and towards the end of the 48th mile it became a mere ditch. In 1851, General Jacob, Political Superintendent of the Upper Sind Frontier, represented to the Commissioner (Sir Bartle Frere), the great advantage of enlarging the Bigari. It was then becoming yearly smaller, from the defective system of clearing. At the head it was 24 feet wide, with a depth of nine feet. It was proposed to enlarge to 40 feet, with a depth of 11, and to slope the banks to a proper gradient. The Núrwah was the chief offshoot of the Bigari, and had been carried far into the desert north of Khangarh. General Jacob, in 1852, proposed that the Núrwah should also be cleared and enlarged. He entrusted the work to a native contractor, who had to remove enormous heaps of earth, 25 to 30 feet high on the banks, to cut away jungle, and to clear dams out of the bed. The contractor did his work well, though only a common Sindhi Maistri, and completed it in 1854. The capacity of the Bigari was about doubled by the new excavations, and much wheel irrigation was converted into natural flow with a saving, each season, of 130 rupees for every wheel. Villages sprung up along the Núrwah, where a few years before people scarcely ventured to take their flocks, from fear of Balúch plunderers. Jacobadad was founded

General Jacob.

Enlargement of Bigari.

Bigari canal.

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founded in the midst of a barren treeless waste. The water of the Bigari canal was brought to Jacobabad, and the tail was extended thence to the Kelat boundary near Keragari (Khyra Ghuri). Now the former desert is a dense forest of babúl and other trees, upwards of 60 feet high, sheltering the houses and gardens of the inhabitants. Within a few miles there is the desert again which skirts the Baluchistan hills, a level plain of splendid, fertile, alluvial soil, but hard, naked, and barren like a threshing floor, without shrub, herb, or grass, except in the vicinity of canals. There the desert is converted into a garden, woods took the place of sand, and the Bigari canal revenue, which amounted to 4,796 *l.* in 1852, was 13,594 *l.* in 1857, and 17,339 *l.* in 1862. The improvements of General Jacob only cost 16,200 *l.* In 1860 it was resolved to increase the width of the first 40 miles; and in 1867-68 this important canal was again enlarged and improved.

Canals east of the Indus.
E. Nara canal.

On the eastern side of the Indus, between that river and the desert, there is an ancient channel, called the Eastern Nara, which had ceased to flow as part of the Indus since that river, deserting the passage through the rocks at Alor, took to its present channel between Rori and Sakkhar. The Eastern Narra had no direct communication with the Indus, when Sir William Baker came to Sind in 1842, but received a precarious supply of water from a remarkable depression which runs parallel with the Indus from above Bhawalpúr, and, being lower than its flood height, receives some water from canals, and a more considerable volume by direct overflow. The channel of the Eastern Nara being also lower than that of the Indus, can easily be filled from the great river on a higher level, and Sir William Baker pointed out the rock at Rori as offering a site for the head works. Hitherto the overflow of the Indus, in floods, had formed the Nara supply. In 1826 Sir A. Burnes mentions that the Nara, which in its lower course is called the Púraun, was filled by aflood which cut through the Allah-bund, and reached Lakpat. In 1843 Sir W. Baker saw marks of a flood that rose 18 feet, and in 1843 there were only four feet in the same place. The Nara passes through the wild Thurr, a country covered with enormous sandhills, with occasional tracts of alluvial soil between them, along a channel on which are formed a series of bottoms locally called *dunds*. There are 400 of these *dunds*, or lakes, supplied from the Nara. The people in the Nara valley gain a livelihood by rearing cattle, feeding flocks, fishing in the *dunds*, and carrying on a grain trade with states beyond the Thurr. They eagerly raise crops, whenever the Nara supplies water.

Dunds.

Rori cut.

The cut from the Indus at Rori to the Nara is 11 miles long, and the Nara is 20 feet below the river. Sir Bartle Frere strongly recommended its being made, and work was commenced in 1853, together with bunds across the channel at intervals, to lead off the water for irrigation. In 1854 the cut was in full progress, beginning just above Rori; 16 feet deep, 206 wide, with a berm 15 feet wide on each side, and the excavated earth distributed in two terraces on either bank, forming admirable garden ground. The Rori cut or supply channel was completed and opened on 9th May 1859. Bunds were also constructed across the Nara channel to prevent the escape of water into the large *dunds* among the sandhills.

Mitrow canal.

Two canals, branching from the Eastern Nara, have also been constructed. The Mitrow Canal was commenced in March 1859. It was to be filled by a branch from the Nara, and in 1866 there were 190 miles open, which irrigated 156,803 acres.

Thur canal.

The Thur Canal is another branch from the Nara, intended to water lands at the edge of the desert. It was commenced in 1864, and is now completed, irrigating about 38,000 acres; 50 masonry heads for minor channels were constructed during 1871-72.

Fullali canal.

The Fullali Canal is the main feeder of irrigation channels from Haidarabad southward and eastward. Originally it was a natural branch of the Indus, joining it again 16 miles below Haidarabad. This was prevented by a dam, in the time of the Amirs, and the water was sent to feed the Gaja, Gúni, and other canals to the south. The chief portion thus fell into the Gúni, after a course of 40 miles, the average width being 350 feet. The improvement of the Fullali was commenced in 1856. Two channels of supply were cut from th-

he Indus, and the effect on the water supply was very satisfactory. One of he most interesting services, on which Sir William Baker was employed in Sind, was a survey and levels along the Gúni to its junction with the Púraun (the continuation of the Eastern Nara), and thence to the Allah-bund, which he surveyed and levelled. The Amirs of Sind, after an unsuccessful invasion of Kach, cut off the supply from the Fullali and Gúni, which had fertilised one of its provinces. After our occupation of Sind, the Government of Kach requested Sir Charles Napier to cut the bunds and let the water flow again. Sir Charles sent Baker to do this, who took precaution to take levels first, and found that, owing to certain depressions and elevations caused by subsequent earthquakes, the cutting of the bunds would not restore the water to Kach, but, on the contrary, would let salt water flow back into Sind.

Gúni canal.

The great administrative question with reference to the Sind canals has always been the system by which they were annually cleared of silt, an operation which is absolutely necessary. The old custom was for the Government to pay for the clearance of the large canals, and for the people to keep up the minor channels. In 1864 the cost of clearances was 41,041*l.* As in the case of the Punjab inundation canals, the Sind canal clearances were effected by *cher*, or statute labour. Every cultivator was forced to furnish a quota of labourers in proportion to the extent of his cultivation. The silt is sometimes removed in baskets, and sometimes by a board drawn by oxen, like a gigantic hoe, trailed along the ground. But usually the only implement is a hoe, with a long blade and short handle. The labourer fills the blade by striking it into the soft soil, and by a jerk throws a shovelful upwards and behind. One man stands behind another, and the soil is thus passed on. The canal digging lasts from December to April. But in 1856 statute labour was abolished, and the annual work of clearances became very expensive, while insufficient funds were allowed for it. The canals are deteriorating, solely owing to the sum annually allotted being less than is adequate for the purpose.

Canal clearances.

There is a special tax, called *huccaba*, of three annas per biga, levied from lands watered by canals cleared by Government, to aid the cost of clearance. Sir William Merewether has represented that the *huccaba* is credited to revenue, and that only a portion, arbitrarily fixed without regard to real requirements, is allotted to canal clearances. He has remonstrated against this, and has represented that the canals will each year deteriorate, in proportion to deficient clearance. The sum required in 1870 was 41,168*l.*, and the grant was only 37,540*l.*; yet the *huccaba* amounted to 47,708*l.*, every farthing of which, he urges, ought to have been expended on the object for which it was intended. Sir William Merewether thinks that the *huccaba* should be made an entirely separate fund, for canal clearances. This question was taken into consideration, and the Government of India declared that the *huccaba*, being part of the land revenue, could not be dealt with separately; but that whatever sum was needed for canal clearance should certainly be given.

Huccaba tax for canals.

Since 1855 Colonel Fife has advocated the construction of perennial canals in Sind, issuing from permanent heads. Sites for such heads can be found at only three points on the Indus, at Sakkhar, at Jharrak, 250 miles lower down, and at Kotri. He considers these to be the proper points for canal heads. From Rori he would take one down Eastern Sind, crossing 150 canals to Fullali, which would become the trunk line for 80 miles. From Sakkhar, opposite to Rori, another would be led down the western side, parallel with the river, crossing the Sind and Ghar, and entering the Western Nara to rejoin the Indus at Sihwán. The present canals would be used as distributing channels. From Jharrak two more canals would be taken, one on each side, towards the sea. This scheme would revolutionise the ancient system of Sind irrigation, its advantage being that such canals are permanent, and their supply perennial.

Perennial canals.

Permanent canals.

One perennial canal has been undertaken, from the rocky banks of the Indus above Sakkhar to Shadadpúr, a distance of 63 miles. The line crosses the old Sind canal, where there is a regulating bridge of seven arches each, 10 feet span, and the water is regulated by horizontal sleepers. The scheme for this canal was approved in the end of 1861, and commenced; and in 1868 the work had reached the 24th mile. It is the first attempt at a perennial canal in Sind, and is to irrigate 140,000 bigas of land, yielding a revenue of 209,999*l.* It was opened in June 1870.

Canal from Sakkhar to Shadadpúr.

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General Strachey on Sind irrigation.

General Strachey, in 1867, recorded an opinion that the remedy for inconveniences caused to cultivators by uncertain water supply, never under control, was the substitution of perennial for intermittent inundation canals. The area under canal cultivation in Sind is about 1,200,000 acres, and the land-tax and water charge about *Rs.* 2. 4. per acre. He thinks, if all the water was supplied by flow and none by Persian wheels, this charge might be raised to *Rs.* 3. 4., and that the cultivated area would be doubled. He thus concurs in the views of Colonel Fyfe, and would take two perennial canals from the Indus at Sakkhar and Rori to Sihwán on the west, and the Fulaili on the east side, crossing all the present canals, and using them as distributing channels.

THE GANGES BASIN.

North Western Provinces.

Rainfall in Ganges basin.

The basin of the Ganges is nowhere within the rainless zone; but nearly the whole of the course of the Jamna is in the dry region, with a rainfall less than 30 inches, while that of the Ganges flows through a country which receives very little more rain, until the two rivers unite at Allahabad. But here begins the great distinction between the Ganges and the Indus. While the Indus, in its lower course, receives no affluents, and passes into an arid belt which is absolutely dependent upon its water for every blade of grass, the Ganges is joined by numerous tributaries, and passes into the well-watered plains of Bengal; the rainfall being 46 inches at Benares, and 66 at Calcutta. It is the portion of the Ganges basin above Allahabad, therefore, that most requires irrigation.

Physical configuration.

Colonel Greathed divides this upper region, which comprises the North West Provinces, into three zones. First, the tract along the foot of the Himalayas, which is well watered by rainfall and by numerous rivulets from the mountains, most of which dry up after the rainy season. But along the length of this sub-Himalayan tract there is a deposit of sand and boulders forming a continuous belt 15 miles wide, which creates a vast filter-bed, and, being bordered on the down-hill side by a band of clay, it becomes a covered reservoir. The natural pressure augmented by the rapid slope, across which the filter-bed lies, forces water under the clay, and produces a line of springs on the other side of the clay band, which feed numerous streams, and refresh the country. The local name of the belt of boulder is *bahbur*, and of the tract which it waters by filtration, *terai*. The second zone comprises the great plain through which flow the Ganges and Jamna; and the third is the province of Bandalkhand, sloping northwards from the high plateau of Central India towards the Jamna.

Climate.

The climate of the North West Provinces is very dry, from April to June, when westerly winds prevail, the vegetation of unirrigated plants is almost suspended. In June the winds bring the rain-clouds up the valley of the Ganges from the Bay of Bengal, and the season of agriculture commences; but the rainfall diminishes as the distance from the sea increases.

Well-irrigation.

From the earliest times the people have practised well-irrigation, the depth at which the water is found on the plains being from 10 to 50 feet; but the method is expensive, for it employs six men and three pair of bullocks every day, to keep five acres watered. Colonel Baird Smith, in 1860, reported that there were 70,000 masonry and 280,000 temporary wells in the Doab between the Jamna and Ganges, irrigating 1,470,000 acres. But it is from the water of rivers that the main supply must be drawn by means of State canals, which are far beyond the means of private enterprise in India; and hence the water which, if raised to the proper level, would have fertilised the whole land, has for centuries rolled useless to the sea.

Native works. Feroz Shah.

Yet the native rulers did not wholly neglect this great source of supply. The Emperor Feroz Shah, between 1351 and 1388, drew a canal from the Jamna to water his favourite hunting ground at Hissár; but there are no marks of irrigation works along the line of his canal, which fell into disuse on his death. For a hundred years no water had flowed to Hissar, when, in 1568, the Emperor Akbar issued a decree, ordering the canal of Firuz to be restored.

Akbar.

It is singular that the Ayin Akbari makes no mention of this work of Akbar, and we are indebted to Colonel Yule for our knowledge of the original *sanad*,

Shah Jehan.

which places the fact beyond doubt.* In 1626, the Emperor Shah Jehan projected a branch from the canal of Feroz, to convey water to the city of Delhi, and Ali Murdan Khan was his engineer. The Delhi canal crossed the low land by a masonry aqueduct, traversed the Arávali hills by a channel cut through the solid

*J. A. S. B., No. 171, March 1846.

A MAP OF
THE IRRIGATION
FROM
THE GANGES AND ITS TRIBUTARIES
AND FROM
THE MAHANADI, BRAHMANI &c.
Scale of Eng. Stat. Miles.
HIMALAYA MOUNTAINS
NORTH WESTERN PROVINCES
OUDH
BENGAL
LOWER PROVINCES
CENTRAL PROVINCES
BUNDELKHAND
REWAH
Plain of Chattisgarh
BAY OF BENGAL
Mouths of the Ganges and Brahmapoot
Aravalli Hills
Sambhar Lake
Delhi
Meerut
Agra
Allahabad
Benares
Mirzapur
Patna
Monghir
CALCUTTA
Cuttack
Puri
Pulo Point
Ganges R.
Jumna R.
Sutlej R.
Brahmapoot R.
Mahanadi River
Soane River
Nerbudda R.
Tapti R.
Godavery R.
Pulti Lake
The Terrai or Swamp

solid rock, 60 feet deep at the crest, and flowed through the city in a masonry bed, throwing off innumerable minor streams. Throughout the great halls and courts of the palace a plentiful supply was carried in numerous channels, filling the graceful fountains and marble baths, and watering the gardens. For 150 years it continued to be efficient, but in 1753 this Delhi branch ceased to flow. Ali Murdan also made a canal in the Doab, but it was abandoned almost as soon as it was made, probably owing to the difficulty of maintaining a passage across the mountain torrents at the head.

English works.

Thus, when the English came into possession of the country, all these works of former rulers had fallen into ruin. "We found the country desolate, the cities burnt, when the sons of strangers came to build up the walls, and the rulers to minister."

North West Provinces as a region for irrigation.

The North West Provinces comprise a region which seems designed by Nature as a great field for artificial irrigation. The rivers, after leaving the last gorge of the Himalayas, enter upon plains with a rapidly-decreasing slope; and, flowing parallel to each other, they divide the country into sections, which, both as regards soil and declivity of surface, offer every requisite for irrigation. The steep slopes, at the mouths of the mountain gorges, in many cases enable the engineer, by a proper adaptation of levels in his artificial channels, to obtain a command of water which places the whole country under his command. The chief difficulties under such conditions are in the neighbourhood of the steep slopes, and in the management of the mountain torrents. Occasionally, however, it becomes necessary to adopt other expedients for bringing the water from the river beds to the level of the land to be irrigated, and very heavy excavations are frequently necessary, besides weirs and other works, to regulate the distribution and velocity of the water.

Western Jamna Canal.

The first undertaking of the English was the restoration of the Feroz and Delhi canals, which was commenced in 1823; and the Western Jamna Canal system was fully developed by Colonel Colvin and Captain (now Sir William) Baker, between that date and 1843. The supply is derived from the Jamna, at the point of its debouche from the Sawálákh hills, where the stream is rapid, the fall great, and the bed consists of shingle and boulders. In the cold weather the stream is generally confined to one or two only of the numerous channels into which the bed is subdivided, which are all filled by the high floods of the rainy season. One of these branches was appropriated to the Western Jamna, which leaves the river at a point called *Hathni Kund* (the Elephants pool), nearly opposite the old palace of Badshah Muhal, returning to the main stream, after a course of 25 miles. The supply is increased by deepening the channel, and throwing out a spur into the main stream, which was extended right across in seasons of drought. Additional supplies are thrown into this western branch by two feeders, one called "Colvin's Cut," the other natural. The materials used for the dams were boulder stones and gravel, filled into large gabions of coarse basket work. The canal, continuing along the *khádar*, or low land, near the river, first follows a branch of the Jamna; then a channel excavated to the Putralla river, and then occupies the bed of the Putralla to its confluence with the Somb. Here was the main difficulty, in restraining and regulating these torrents, and forcing them to allow the fertilising flood to pass on its way in peace. The Dadupur dam was built across the united Somb and Putralla, here occupied by the canal, just above their junction with the Jumna. Originally it was carried across this channel by an earthen dam annually renewed; but in 1830 Colonel Colvin obtained sanction for the masonry Dadupur dam, providing a flush flow across the bed of the Somb, divided into 60 openings, the total width being 777 feet. The dam is closed by planks hooped with iron, with an eye for an iron hook, by which they are lifted. The Putralla made an attempt to turn the east flank of the dam, which was frustrated by a series of spurs placed *en echelon*, in 1842. Then the Jamna itself commenced an attack upon the left bank, which was defeated by means of a new channel, and a series of crib spurs *en echelon*. But the Somb still threatened destruction to the works. Lieutenant Durand surveyed the country drained by it, and made a beautiful map of the Somb and Putralla drainage, in the hope of mitigating the force of the Somb floods, by turning a portion into one of the Satlej tributaries. But this was found to be impracticable. Then a new channel, called "Baker's Cut," was excavated, to check the encroachments of the Somb. After a prolonged battle between Colvin, Baker, and Durand, on one side,

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and the Jamna, the Somb, and the Patralla on the other, the victory was finally secured by the skill and perseverance of the engineers. The turbulent enemies were made captive, and the precious stream was safely convoyed past the dangers which are common to all the canals when they first leave the head-works, and have to encounter the lawless mountain floods and torrents.

The canal is then taken through an excavated channel parallel to the Jamna, into an old nulla near Burea, and thence partly down natural ravines, to Karnal, 60 miles below Dadupur, still in the *khádar* or low lands of the Jamna. At Karnal it gains the level of the high country, and soon afterwards separates into two branches,

Delhi branch.

one passing on to Hansi and the other to Delhi. The Delhi branch has a very winding course, the size gradually diminishing, as water is taken off by the numerous irrigation outlets. It enters the *khádar* land of the Jamna, through which it is embanked, crosses the valley of the Najafgarh drainage by a massive aqueduct, traverses the rocky hills round Delhi by a deep irregular excavation in the solid rock, and enters the city near the Kabul gate. One branch flows in a masonry channel down the Chandni Choke; others water the gardens and supply the houses, and finally pass, through four sets of water mills, to the Jumna.

Hansi branch.

The Hansi branch follows the line of Feroz Shah's engineer, and the pastoral villages of Hissár are entirely dependent on it for the means of watering their cattle. At Hissár a travelled courtier of Feroz Shah erected a building to give his master an idea of a ship ("*juhaz*"). It is now used as a store house for the canal, for which purpose its ample "hold" renders it very suitable. The

Rohtak branch.

Rohtak branch is taken off from that of Hansi, and there is another short branch, that of Bootana, to irrigate villages near the Jhind boundary, which was excavated in 1835.

Dimensions of Western Jamna. Results.

The united length of the main lines of the Western Jamna Canal is 445 miles and in the famine of 1837–38 the value of the crops saved by its water was 1,462,800 *l.*, supporting the inhabitants of 500 villages, who would otherwise have died of starvation. In 1866–67 the water rate on irrigation yielded 70,000 *l.*, and the area irrigated was 447,171 acres (797 villages), the aggregate length of watercourses being 728 miles. The canal has also had the effect of raising the level of the water in the wells. The total outlay up to 1871–72 was 282,517 *l.*, and the net receipts for that year 74,518 *l.*, being 26 per cent. on the outlay; but the indirect income is placed at 37,256 *l.*, which raises the percentage or outlay to nearly 40 per cent.

Water distribution.

The system of water distribution on the Western Jamna Canal was complicated by old rights. On the Delhi and Rohtuk branches there were many distributing watercourses, the proprietary right to which was well understood by the people. As regarded new channels, it was made compulsory on all villages bordering on the canal to permit excavations for such watercourses as were approved by the superintendent. The *rajbuhas* are joint stock channels, executed by the canal officers, for the use of two or more villages. The original cost was formerly defrayed by the Government, and ultimately recovered from the villages. But this system has been abandoned, and all the main watercourses are now constructed at the cost of the Government. The distribution of water in the branches has to be regulated with reference to the probable demand. Fixed gauges are established at certain points, and the height of the water is regularly reported.

Water rates

It was found difficult to estimate the value of a given outlet, but a system prevailed until 1833 of letting out these outlets on contract, the rates being fixed at 2 rupees per annum per square inch of area for natural flow irrigation, and 1 rupee for wheel irrigation. But the discharge of the outlets varied with reference to the inconstant height of the canal. It was, therefore, determined to assess the outlets on the average of their irrigation for three or more years, the period of contracts being fixed at 20 years. The other system is to measure the irrigated land. It has been argued that the contract system has several advantages over that under which the irrigated lands are measured. Under it the villages are free from minute interference of canal officers; they are supplied first in times of scarcity; they can irrigate all crops at the same rate; while the advantages to Government are a steadier revenue and a smaller measuring establishment. There are, however, sufficient reasons for commencing with a system of measurement, as the basis of the assessment of the canal rates, though under certain conditions the contract system may be usefully adopted. Certain villages

villages near the canal heads contribute labour in exchange for a supply of water for irrigation and for working *girats*, or rude corn mills.

Colonel Colvin's scale for water rates on the measured land was sanctioned in 1827, and again in 1845 (Act VII.) These rates discriminate the nature of crops and the method of employing water, whether *tor* or *daul*, that is, natural flow, or artificial raising by Persian wheels or otherwise. But from 1st November 1866, the rates were considerably increased. The rate, for each acre per annum, is 5 rupees for garden lands irrigated by natural flow, 3 rupees for sugar-cane and indigo crops requiring water for 10 months; *Rs.* 2. 4. for rice, cotton, and wheat crops; and *Rs.* 1. 10. 8. for the khurif crops of grain, barley, bajor, and jawóví. When the irrigation is from water artificially raised, the rate is about a third less.

Improvement of Western Jamna Canal.

Of late years the necessity for dealing with the Western Jamna Canal has been much felt, with a view to remove the swamps which had formed along its banks and in the country which it irrigates; to remedy the evils caused by *reh* efflorescence, which destroys all vegetation; to increase the volume of its waters; and to improve its navigable character. During 1871 Colonel Crofton matured a scheme which was partly sanctioned by the Secretary of State, the works so approved being the new permanent head across the Jamna, distributaries from Indri to Delhi and Jhind, and drainage works. The estimate amounts to 214,267 *l.* The permanent dam across the Jamna is a most important work, as it is intended to supply both the Western and Eastern Jamna Canals, and to secure a due apportionment between the two systems. The construction of reservoirs for the storage of a supply of water for the cold weather cultivation in the arid tracts of Sarsa, is also under consideration.

Najafghar jhil.

There is a system of irrigation from *jhils* or large lakes which is in some degree connected with the Western Jamna system. The range of hills round Delhi is of inconsiderable height, and has few streams. The watercourses in the country to the east and west are dependent on the drainage of the country for occasional floods. The land is disposed into a series of natural hollows, each lower than the one next to it, and all connected by channels; a chain of natural reservoirs is thus formed, the largest of which is the Najafghar jhil, which receives the drainage of slopes from Delhi to Bádshâhpur. The villagers keep their cotton crops on the high ground, while their sugar cane and wheat fringes the whole jhil; but the land, both on this and other jhils, was subject to be submerged, and the supply of water required regulation. Of late years the whole area of the Kotila jhil has been drained, and 4,500 acres brought under cultivation during the cold weather; embankments have been formed, and the drainage of the whole system passes under the great aqueduct of the Delhi Branch Canal into the Jamna.

Kotila jhil.

Eastern Jamna Canal.

The Eastern Jamna Canal was originally projected by Shah Jehan between 1628 and 1659, and had been partially restored in 1764 by a Rohilla chief named Zabitha Khan. In 1823 Captain Robert Smith reported upon its restoration, the scheme being to carry it centrically along the high land between the Hindaun and the Jamna, and excavation was commenced at the close of 1823. In 1825 the late Sir Proby Cautley joined the canal establishment as assistant to Captain Smith. The canal was opened on 3rd January 1830, by Sir Proby Cautley, and the water reached the Jumna again, after traversing its whole length, on the 14th. Rapids formed in the sandy sections, which were remedied by falls of masonry. In 1836 the bunds of the Western and Eastern Canals were placed across the Jamna, and the river was laid entirely dry. The *Nayashahr* dam, for the Eastern Canal, was formed on the Budhi Jamna with 30 sluices and a regulating bridge in the canal. The dam was built of ancient bricks brought from the old palace of Badshah Muhul. The Eastern Jamna Canal passes, from the main river, down the shingly bed of the Budhi Jamna for four miles to Nayashahr. From this point it enters upon the difficulties peculiar to these lines, which have to cross mountain drainage at right angles to their courses. The Rajpúr, the Jatonwala, Naugong, and Muskurra, mountain torrents of greater or less dimensions, are passed within a distance of 10 miles from the deep cutting at Nayashahr. These torrents are provided with masonry dams for floods during rains. The canal then continues on the high land of the country. Large plantations of sál, sissú, and other trees were formed at Nayashahr for planting the banks of the canal. The *rájbuha*, or distributing arrangement, was for

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the landholders to subscribe for watercourses to be dug from the canal by the superintendent, the expense being charged to the applicant, except that of the masonry outlets in the canal, of which there are 592. The water rate fixed by Sir Proby Cautley was given in beegas (55 square yards), but it has since been raised. It is now the same as for the West Jamna Canal.

Dimensions. The embankments to retain the canal in its bed are 40 miles long, and the canal flows between them at a height of from six to twelve feet above the surface of the country. The canal system consists of 130 miles of channel and 619 of distributaries, watering a tract about 120 miles long by 15 broad, between the Revenue. Hindaun and the Jamna. The net revenue in 1871–72 was 32,881 *l.*, giving a return of 16·6 per cent. on the outlay. The area irrigated was 192,749 acres, the season of 1871–72 having been most unfavourable for irrigation.

Ganges Canal. The Ganges Canal, a purely British work occupying a field previously untouched, is the greatest work of irrigation ever constructed. In 1836 Sir Proby Cautley examined the country, and in 1848 the work was commenced.

Head works. The head of the canal is two and a half miles north of the town of Hardwar, close to the foot of the Sawalákh mountains, where a well-trodden footpath once led down a ravine to the water's edge in a branch of the Ganges. At the head of this ravine, and overhanging the river was a large peepul tree, and at its foot a lingam. The spot was called Gunes Ghat. Here a bridge was constructed with 10 openings across the mouth of the canal with shutters, and a line of revetments connect the bridge with a dam across the branch of the Ganges. The Gunes Ghat was converted into an extended line of stone steps, washed by a running (among the many) stream, offering conveniences for pilgrim bathers.

Mountain torrents. After leaving the Ganges, the canal had to encounter the difficulties of the mountain torrents, analagous to those which were overcome by the engineers of the Jamna canals. There are three methods of meeting and passing these torrents. They can be made to flow across the canal channel on the same level, or taken over it by a super-passage, or the canal can cross the torrent on an aqueduct. All three ways were adopted by Sir Proby Cautley on the Ganges Canal. At Dhanairi, about 14 miles from the head works, where the canal is still in the khádar land, the Rutmú torrent is encountered. Here a masonry inlet and a dam were constructed. The flood waters enter the canal channel through the sluices of the inlet, and are discharged through 47 sluices in the dam. They bring down branches, roots, whole trees, and masses of grass, and no obstruction, except the piers of the dam, is offered to their passage across the canal channel. Further on, the flood waters of the Ránipur and Puttri torrents are conveyed over the canal channel, without coming in contact with the canal water, by means of well protected and parapeted masonry super-passages. The next great work on the canal is the aqueduct, which takes it over the Solani river, which is 18 miles from the head works.

Solani aqueduct. The Solani aqueduct is 920 feet long in 15 arches of 50 feet span each, connected on either side with an earthen embankment, raised nearly 30 feet above the valley of the Solani, which it traverses for a length of about three miles. The canal continues along the centre of the country between the Ganges and Jamna, throwing off branches at intervals, all adapted for internal navigation as well as for irrigation. The main channel is 348 miles long, the branches 306, and the Dimensions. distributaries 3,078 miles in aggregate length, and 767,000 acres are watered by them in 5,061 villages. Irrigation commences 22 miles below the head works and is diffused over an area 320 miles long by about 50 broad. The Ganges Canal was opened by Lord Dalhousie on the 8th of April 1854.

Erosion in the bed. Experience has shown that, in the original design, too great a slope was given to the bed of the Ganges Canal, and considerable erosion in the bed has been the Report by Colonial Crofton. result. In 1863 Colonel Crofton was appointed to report in detail on the whole question, and his conclusions have been generally adopted by the Government. The main point to decide was whether the existing canal should be modified, so as to be able to carry with safety the whole volume of water for which it had been originally designed, or whether a second channel should be made to carry that part of the supply which the canal in its existing state could not carry with safety. The remodelling of the canal was shown to be the most economical Improvements. alternative, and it was adopted. In August 1864 an outlay was sanctioned for the protection of the falls that were most injured, and the precautions taken were

so

so successful that the full supply has been maintained in the canal, for a considerable period, without any appearance of renewed injury. Meanwhile projects are in preparation for the re-arrangement of the Cawnpúr, Fathigarh, and Etáwah branches of the canal, and the re-modelling of the first was sanctioned in 1868. The net profits of the Ganges Canal, for 1871–72, were 66,234 *l.*, or 2·78 per cent. on the capital sunk; but the net navigation returns were only 1,421 *l.* Revenue.

The Agra Canal is a project, now approaching completion, for watering the thirsty lands of Delhi, Gurgáon, Mattra, and Agra from the Jamna. A weir, 2,428 feet long, has been built across the Jamna, below Delhi, at a point where a spur of quartz from the Arâvali range abuts upon the river. It consists of two parallel masonry walls, 26 feet apart, resting on the fine sand of the river bed, with stone packed between them, with slopes and scouring sluices. The Agra Canal is designed to irrigate 350,000 acres, and will probably be partly opened this year. Agra Canal.

There is also a project for completing the system of the Ganges Canal, by the construction of a Lower Ganges Canal, with a capacity equal to that of the present Upper Canal, on an estimate of 1,825,000 *l.* The scheme has been sanctioned by the Secretary of State, and work was commenced in 1871–72. This, with the Upper Ganges and Eastern Jamna Canals, will complete the irrigation of the whole country between the two rivers. The weir across the Ganges, for the Lower canal, is to be at Rájghat. Lower Ganges Canal.

An Eastern Ganges Canal is to be constructed, taken off at the foot of the boulder formation, which is to irrigate 455,000 acres, equal to 35 per cent. of the area of the districts commanded. The scope of the project has now been finally determined. Eastern Ganges Canal.

The Rohilkhand Canals are for irrigating the belt of country along the *terai* where much rice is raised. On the failure of rain, water can only be obtained by damming up the hill streams, and leading small canals over the country, on which the *rubbee* crop depends. In 1824, there were 1,930 dams, and 915 canals. All the country between the Rámganga, which passes by Murádabad, and the frontier of Oudh, is intersected by numerous hill streams whence canals could easily be led. The Nugína Canal was taken from the right bank of the Koh, and opened in 1840, and there are Murádabad Canals. Two others, the Paba and Kailas, have recently been sanctioned, and are in course of construction, and a project is to be prepared for utilising the waters of the Ramganga. But, with regard to a general and comprehensive scheme for Rohilkhand irrigation, the present orders of the Government are only of a character to elicit further and more complete information. Rohilkhand Canals.

There is a compact little system of irrigation in the Dehra Dun, between the Ganges and Jamna, and confined on the north by the Himalayas, and on the south by the Sawálakhs. The valley is 48 miles long, and in the centre it is considerably elevated, the ridge extending from the Himalayas to the Sawálakhs, and dividing the valley into two portions with two distinct slopes of drainage to the east and west. The Asnu and Súswa rivers rise on this central ridge, the former going to the Jumna, and the latter to the Ganges. All the elements of a good system of drainage are here naturally provided. On the Asun side there is a torrent called the Tonse, across which a dam is thrown, and watercourses are carried in various directions from the other streams, to irrigate the valley. There are five canals, aggregating 67 miles in length, and irrigating 11,039 acres. Dehra Canals.

In the Arávali hills, there are no such rivers as water the Dehra Dun. Isolated and surrounded by the parched-up plains and deserts of Northern India, the cultivation on these hills mainly depends on water stored in tanks, and some of the landholders preserve the thorny scrub on the hill sides, in order to regulate the filling of the tanks from rain. The district of Mairwára, in the Arávali, was brought into subjection by Colonel Hall, in 1820, and his successor, Colonel Dixon, in 1835, constructed tanks and reservoirs on a large scale. Between 1836 and 1846, as many as 2,065 tanks and 9,915 wells were constructed in Mairwara. The tanks have a total area of 8,675 acres, and irrigate 14,826 acres of land. The once wild and unruly Mairs became a thrifty, peaceful, and industrious Arávali tank irrigation. Tanks in Mairwára.

V
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trious peasantry, under the influence of these improvements, and of such men as Hall and Dixon.

Bandalkhand irrigation.

For Bandalkhand large schemes of irrigation have been devised. The rainfall is carried off with great rapidity, owing to the granite and trap formations, leaving the river beds almost dry soon after the rain ceases. One proposal is to build a weir across the river Betwa, which flows near Jhansi, to retain the water, and a canal will then irrigate 120,000 acres in the Jalaun and Hamírpur districts. Other weirs are projected across the rivers Desan and Ken, with granite weirs and canals; while 15 lakes, now irrigating 1,300 acres, will be made to water 22,000. These measures will secure Bandalkhand and Jhansi against famine, and restore this region to its pristine fertility. There is every prospect of these anticipations being fully realised. A survey has also been prepared for a canal to be derived from the river Sardah, to irrigate the western part of Oudh and eastern Rohilkhand; but in deference to the expressed wish of the landholders, the construction of this work has been abandoned.

Sardah Canal.

Such has been, and still are, the efforts to supply irrigation in the upper part of the basin of the Ganges. They cannot be considered insignificant, seeing that there is nothing that in any way approaches them in magnitude and importance in any other part of the world. The area irrigated by the canals of the North West Provinces in 1870–71 was 1,050,808 acres, but in 1871–72 only 852,494 acres, yielding an income of 217,573 *l.* to the canal administration. The charges for establishments are high, and the net profit was only 94,734 *l.* The demand for water depends in a great degree on the rainfall, so that the irrigated area varies in different years, but the average for the last five years has been 1,065,450 acres.

Extent of irrigation in the N.W. Provinces.

Son project.
Bahar.

As the Ganges approaches the sea, the rainfall increases, and the general need for irrigation becomes less and less; but the variation of rainfall in different districts is considerable, and the local condition of climate are such, that a great scheme for utilising the waters of the Son, the chief southern tributary of the Ganges for the irrigation of part of the province of Bahar, has long been under consideration, and its execution has now been commenced. It was originally undertaken by the East India Irrigation Company, on a plan proposed by Colonel Dickens, and their project was accepted by the Government in 1867, on the understanding that the agreement must end, if the company did not make satisfactory progress with the works. An application of the company for a guarantee of interest on their capital was rejected; they never commenced work, and at length they were induced to agree to an arrangement by which they were bought off. The Government then took up the Son project with energy. It consists of a dam across the river, and two main canals led off from it, which will supply irrigation for 2,000,000 acres in the districts of Patna, Gaya, and Sháhabad. The estimated cost is 3,775,000 *l.*

The works at present in progress are the weir across the Son at Dehri, and the head works of the two main canals, also a portion of the main canals on each side of the river, and the Arrah and Patna Canal. The weir will be two and a half miles long between the abutments, and eight feet high. In 1870–71 the well blocks of masonry which form the foundation of the upper or breast wall, were sunk right across the river. In 1871–72 those for the second wall were also sunk, and good progress was made with the head and under sluices, and with the head locks; but the operations were hampered by the unusually large volume of water in the river. The stone is brought from quarries at a distance of seven miles, on the left bank of the Son, 200 waggons and four locomotives being employed to convey it. On the western main canal 22 miles were in progress, the earthworks were well advanced, and five large bridges were under construction; while eight miles of earthwork were completed on the eastern canal. On the Arrah Canal, which is to be 70 miles long, and to irrigate 430,000 acres, ground had been broken over 60 miles. The Patna Canal is to connect the Son with the Ganges at Patna. It is to be 84 miles long, and to irrigate 390,000 acres. On the whole, the progress of the Son works, during the last two years, has been most satisfactory.

Bengal.
Midnapur Canal.

The Midnapur Canal, part of which was open and in use in 1871–72, supplies a country which is within the zone of 60 inches of rainfall. This canal is 52 miles long; 23 of which, comprising the lower section, connect the rivers Cossye, Rúpnarain,

Rúpnarain, Dámodar (Dumooda), and Hugli. Considerable progress was made in the upper section, where is the heaviest work, and a weir across the Cossye at Midnapur was completed. In another year the canal will be open for traffic, from the Hugli to Midnapur. The scheme comprises the irrigation and drainage of 200,000 acres, as well as a navigable canal from Calcutta to Midnapur. The estimated cost is 700,000 *l.* About 101 miles of distributaries have been made, commanding 60,000 acres, and are in use. But smaller branches to villages are much needed. They could not be made by the people, or at least the people would not make them, so it was determined, as an experimental measure, that Government should do so for the first 50,000 acres in the upper reach of the canal. The people did not care for the channels, grudged the land, and viewed their construction as a grievance. Irrigation is not popular in Midnapur, a proof that the rainfall is abundant.

This completes a review of the chief irrigation works in the valley of the Ganges; and the Orissa canals and embankments, in the delta of the Mahánadi, next claim attention, as they, with the Son and Midnapur works, are under the jurisdiction of the Lieutenant Governor of Bengal.

Orissa.

Mahánadi.

The Mahánadi river drains the fertile plain of Chatisgarh, in the Central Provinces, and falls into the bay of Bengal. It is 529 miles long, and its basin covers an area of 45,000 square miles. But the Mahánadi basin is extraordinarily compact. It has a mean diameter of 225 miles, excluding the neck, so that but a very moderately wide spreading rain storm will ensure rain falling on every square inch of the area simultaneously. The form of the basin is that of a round and compact body, with a narrow neck and bell-shaped mouth, like a water decanter, than which it is difficult to conceive one more calculated to empty itself rapidly, while the position is one of very close proximity to the sea, the source of rain clouds. Thus the Mahánadi is pre-eminently fitted to produce what are actually met with, namely, floods ranging extremely high, but of brief duration. The Province of Orissa, at the deltas of the Mahánadi and Bráhmani, has long suffered from these periodically devastating floods, and the maintenance of its embankments has always been of the first consequence to the inhabitants.

Floods.

East India Irrigation Company.

Colonel Rundall.

Isolation of Orissa.

The East India Irrigation Company undertook the execution of the necessary works for the irrigation of Orissa, and the protection of the country from floods, with an unguaranteed capital. Their offer was accepted by the Government; Colonel Rundall, an eminent Madras engineer, was allowed to act for them as chief engineer for five years, and they commenced work in 1862. One of the most serious evils suffered by Orissa, at that time, arose from its isolation. The one little harbour at False Point was scarcely ever visited, there was no proper survey of the coast, and the road to Calcutta was barely passable during six months in the year. The leading principles to be observed in projecting the works were means to prevent the recurrence of drought, protection of the harvests from being destroyed by floods, and the opening of communications.

Description of region.

Rainfall.

The region in question extends along the coast from the Chilka lake to the Sálandi river, and is traversed by the deltas of four rivers, the Mahánadi, Bráhmani, Baitarni, and Sálandi, which, in time of floods, may be looked upon as one vast delta; while immediately above the point where these rivers begin to overflow their banks, the country begins to slope up steeply to the hills. The limits of the area, within which the works should be confined, are thus clearly marked out. This area is perfectly flat, and the staple crop is rice, grown during the monsoon months. The amount of rainfall averages 57 inches; but as the whole dependence is on the monsoon crops, it is not the quantity of rain, but the time of its fall that is all important. If the rains cease early, a famine is inevitable. In 1865 the rains ceased on September 14th, and the crops consequently perished. The main object of the works must be to secure the principal crop of the district from all risk of failure from drought.

System of rivers.

Head works.

Immediately upon issuing from the hills, the Mahánadi bifurcates, one arm retaining the name of Mahánadi, and the other taking that of Katjuri. The Beropa branches off from the Mahánadi opposite Cattack, and after 35 miles joins the Bráhmani, whose estuary is called the Dhamrai. The head works were planned to consist of three weirs across the Mahánadi, Katjuri, and Beropa, 6,400, 3,900, and 1,980 feet long respectively; the two first $12\frac{1}{2}$, and the third 9 feet high.

V. IRRIGATION.

Canals.

high. The canal for the country between the Mahánadi and Katjuri, called the Central Delta, is taken off from the right flank of the Mahánadi dam, and a junction canal is to connect it with the Katjuri. Two canals are led off from the Beropa dam, that on the left bank being the high level canal to connect Cattack with Calcutta, and that on the right being intended to irrigate the country between the Mahánadi and Bráhmani. Embankments are built round the city of Cattack to protect it from floods.

The Kendrapara Canal takes off from the right flank of the dam across the Beropa, to irrigate 270,000 acres of what is called the Northern Delta, at the rate of one cubic yard per hour per acre; it is 160 feet wide, and seven deep. The distributaries measure in all 171 miles, and there is a branch called the Pattamundi, taking off from the fourth mile and passing down the right bank of the Beropa and Bráhmani to Pattamundi, the port on the Dhamrai, a place of export for grain. This branch irrigates 113,000 acres. The Taldundah Canal takes off from the right flank of the Mahánadi dam and runs to Taldundah, the limit to tidal navigation to which the steamer brings goods and passengers from the anchorage; it has a branch called the Machgong, and the two are to irrigate 155,000 acres of the Central Delta. The high level canal is designed as a line of navigation from Cuttack to Calcutta, while its power as an irrigating canal is limited. The whole cost of the Orissa works was estimated at 1,120,963 *l.*; but the total sum has since been placed at 2,772,500 *l.* to irrigate 1,600,000 acres.

Cost of works.

Failure of the Company.

The Company was unable to carry on the works, and they were handed over to the Government in 1868, together with the Son project, for the sum of 1,050,000 *l.*, since which time the gradual prosecution of the Orissa scheme to completion has been sanctioned. The three great weirs had already been constructed by the Company, and have since been maintained in perfect order and security. During 1871-72 the work in progress was the raising and strengthening of the embankments of the Kendrapara Canal, and the excavation and embankments of the Taldundah and Machgong, 81½ distributaries had been completed. But there is a want of appreciation of the value of irrigation on the part of the cultivators of Orissa; the available supply is even now out of proportion to the demand, and there is a disposition only to resort to irrigation when the rain fails. The Company asked for a rate of five rupees per acre, which was refused by the cultivators; the Company then lowered the rate, but the ryots still refused the water. It was again lowered, and is now one rupee per acre. Only 14,740 acres are irrigated in Orissa, and there is great difficulty in collecting the water rate. The assessments were disputed at every step, and howling mobs followed the canal officials, representing their grievances. There is indeed a story that the ryots were charged for water rates, when banks burst, and the inundation damaged their crops. Demand after demand had to be abandoned, and finally the net income in Orissa on account of irrigation for 1871-72 was only 1,772 *l.*, out of an original demand for 12,982 *l.* The Ooryas are slow and conservative, but at the same time shrewd and suspicious, and the Lieutenant Governor considers that they must not be harassed by charges, and that the water rate must be settled for a period of years, five at least. This has been done, the water being supplied, on written application, at the rate of one rupee per acre, which rate is not to be altered for five years. The management of the Orissa works will require tact and judgment, but there is reason to hope that eventually their great value will be fully appreciated by the people.

Works in progress.

Attitude of the people.

Water rates.

Difficulty of assessment.

Charge for water fixed for a term of years.

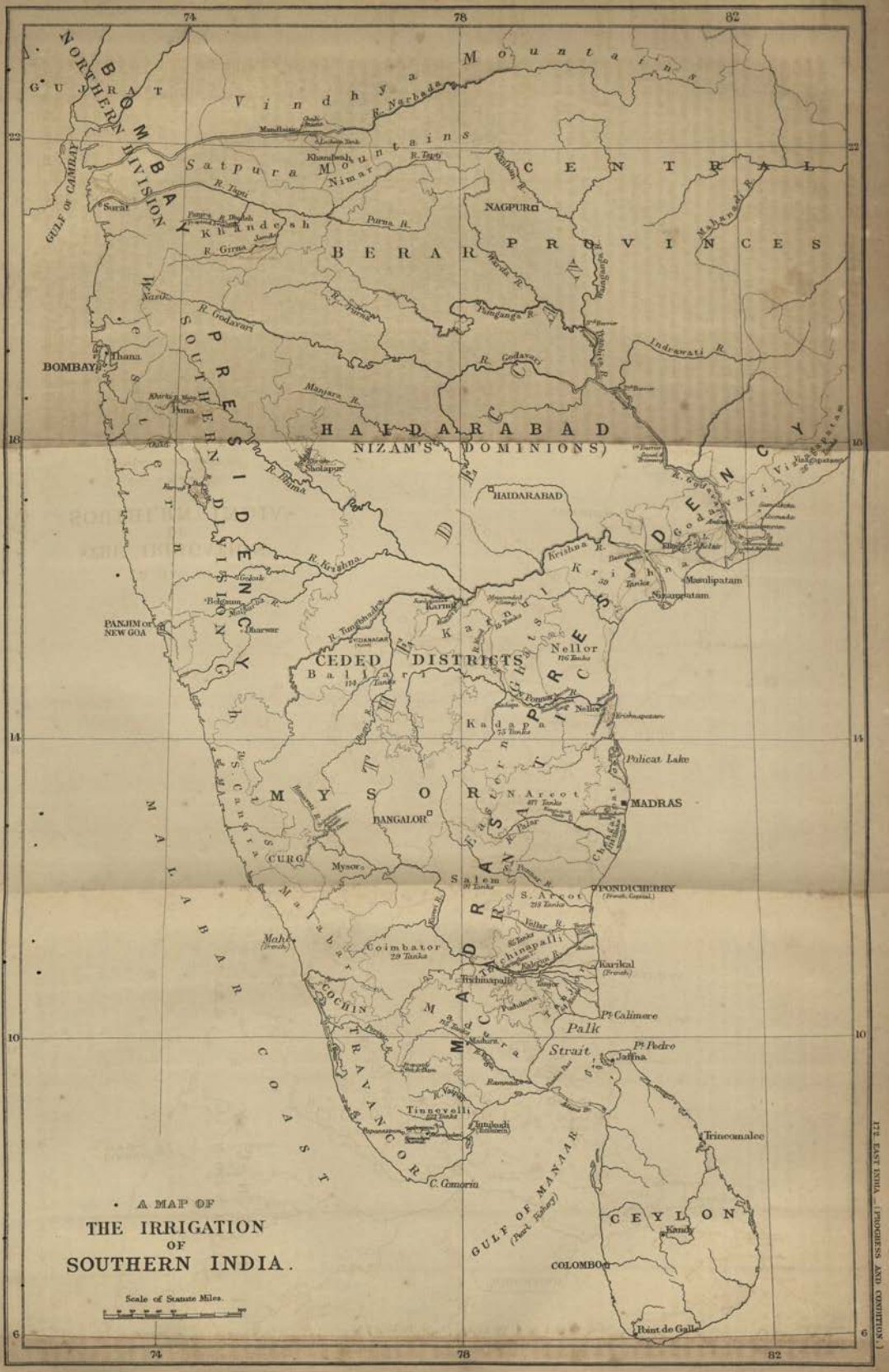
On the other side of the hills which bound the basin of the Mahánadi, are the fountains of the Narbada, and of tributaries of the Godávari. The Narbada and Tapti flow across India, confined on either side by ranges of mountains; the Vindhyan range, with its steep cliffs bounding the Narbada valley on the north; the Sátpura range separating the Narbada and Tapti, and the Deccan plateau confining the Tapti and its affluent the Purna to the south. These streams flow through the richest cotton districts of India to the Gulf of Cambay; in a country the rainfall of which is from 30 to 50 inches. The area of the Narbada basin is 36,400, and of the Tapti 27,000 square miles. Irrigation is necessarily on a small scale in these comparatively confined valleys. The district of Nemar, in the Narbada valley, was acquired from the Peishwa in 1818. The lake of Lachma, a tank three miles round, which was found in ruins, was restored, and 105 other tanks were put into working order within two years. In 1845 and 1846 Captain French, then in charge of Nemar, made a masonry dam across the ravine of Chuli,

NARBADA AND TAPTI BASINS.

Central Provinces, Narbada.

Tapti.

Nemar.


A MAP OF
THE IRRIGATION
OF
SOUTHERN INDIA.
Scale of Statute Miles.
GUJRAT
NORTHERN DIVISION
BOMBAY
GULF OF CAMBAY
Vindhya Mountains
Satpura Mountains
Khandesh
Surat
BERAR
CENTRAL PROVINCES
NAGPUR
HAIDARABAD
NIZAM'S DOMINIONS)
HAIDARABAD
BOMBAY
Thana
Poona
Sholapur
Kolhapur
Karnul
Nellor
Masulipatam
Nizampatam
PANJIM or NEW GOA
Dharwar
CEDED DISTRICTS
Ballari
Kadapa
Pulicat Lake
MADRAS
MYSOR
BANGALOR
N. Arcot
CURG
Mysor
Salem
PONDICHERRY
S. Arcot
Mahé
Coimbator
Trichinapalli
Karikal
COCHIN
Madura
Pt. Calimere
Palk Strait
Pt. Pedro
Jaffna
TRAVANCOR
Tinnevelli
Tuticorin
C. Comorin
GULF OF MANAAR
CEYLON
Kandy
COLOMBO
Point de Galle
Trincomalee
MALABAR COAST
74
78
82
22
18
14
10
6

Chuli, opening on the Narbada, and another large earthen dam across the Chapri, thus forming the great Chuli and Mandleswar tanks. The reservoirs and system of irrigation may be roughly described as being on the Madras system. The portion of Nemar north of the Narbada has now been made over to Holkar, together with Mandleswar, formerly the head-quarter station, which is now transferred to Kandwah, where the Holkar State Railway branches to Indor.

Gujrát.

In their lower courses the Narbada and Tapti flow through the cotton-growing districts of Gujrát and Khandesh, where much attention has been given to well irrigation, and to improved methods of raising water from the rivers, as well as to works on a large scale. A project for the irrigation of 194,632 acres from the river Tapti, in Gujrát, has been sanctioned, and several works are either under construction or projected in Khandesh. A dam for the storage of water in the Girna valley has been commenced. The Jamda canals have been opened, and water was admitted in June 1869. The Mukti reservoir is under construction near Dhulia, the main dam being complete, and an outlet tunnel excavated to an extent of 80 feet. The Hurtola tank is nearly completed.

Tapti project.

Khandesh.

Girna project.

Jamda Canals.

Mukti reservoir.

Hurtola tank.

As regards rainfall, latitude, and jurisdiction, the country drained by the head waters of the Warda and Wainganga tributaries of the Godávari, in the Central Provinces, may be classed with the Narbada region. No great works have been completed in this region, but surveys have been made for the Kanhan irrigation project at Nágpur, which consists of a great storage reservoir, covering an area of 41 square miles, of a main canal 142 miles long, and minor canals with an aggregate of 400 miles.

Kanhan irrigation project.

MADRAS SYSTEM OF IRRIGATION.

The main features of the Madras system of irrigation are the dams or *anicuts* over rivers flowing across the peninsula from the western ghauts, just above their deltas, and the innumerable tanks. The river deltas, which have been the scenes of these excellent and highly remunerative labours, are those of the Godávari, the Krishna, the Ponnar, and the Kaveri, besides some smaller works. The rainfall along this western shore of the Bay of Bengal is moderate, and insufficient for the satisfactory production of rice, the crop which is most abundantly cultivated. At Vizagapatam it is 45 inches, at Madras 50, but further south only 30 and 22.

Delta works.

Commencing from the north, the projects for the Godávari works were sanctioned in 1844. At the head of the delta, at Dhauleswaram, the deep bed of the river is 22 feet above high-water mark, and the highest part of the delta requiring irrigation is 30 feet above the same level. From Dhauleswaram the river flows to the sea, on the crest of what may be termed a great natural embankment, 6 to 24 feet above the level of the country. The bed of the river, therefore, only required to be raised 10 or 12 feet to give a perfect command and establish a working and efficient head of water. This is effected by a dam or *anicut*, 12 feet high, at Dhauleswaram, where the river is three and-a-half miles wide, 1,000 yards of which is occupied by four islands. The *anicut* is a substantial well-protected mass of stone, in lime cement, 130 feet broad at the base, 12 feet high, and two and-a-half miles long. The delta, from the Kolair Lake to Samalkota, is a noble expanse of rich alluvial land, with an irrigable area of 2,000 square miles; and the Godávari can supply 3,000 cubic feet of water during the low, and 12,000 during the high period of the river's volume. The larger quantity may be depended on from July to October, when the rice-crop requires a constant supply of water (40 acres of rice to one cubic foot per second of water). The delta is divided into three natural sections, the first between Samalkota and the eastern Godávari, the second between the two branches of the river, and the third from the western Godávari to the Kolair lake. In the first section there is a channel along the river, and another, separating into two branches, to Samalkota and Cocanada. These and all the other main lines of canal are adapted for navigation, as well as for the supply of water for irrigation. The second section consists of 352,000 acres of a rich alluvial soil of surpassing fertility. A main channel passes down the left bank of the river, and, at the eighth mile, branches into two. The right-hand branch is again subdivided, six miles further on, and one line crosses a minor branch of the Godávari, by the Gunnarum brick aqueduct constructed by Lieutenant Haig, 2,248 feet long, on 49 arches. The third section has a main channel carried out for eight miles, when it breaks off into several branches, having a united length of 220 miles. Altogether there are 840 miles of main channels to irrigate 780,000 acres. In 1864 an extension

Godávari.

V. IRRIGATION.

of the Godávari line, completing the water communication between the Godávari and Krishna works was sanctioned, and since that improvements have been executed from loan funds. The traffic on the canals of the Godávari is of much importance to the district, and in 1871–72 was carried on by 56,471 boats and rafts.

Krishna.

The Krishna enters the low country at a distance of about 80 miles from its mouth; and both its banks, below Bezoarah, spread out into rich alluvial plains. The site of the *anicut* at Bezoarah is flanked by the last hills; thence the plain stretches uninterruptedly to the sea, and to the Godávari. The two rivers have formed the alluvial plains of the deltas, but half way between them is the Kolair lake, a low swampy tract representing the work the Krishna and Godávari have to do before this alluvial plain is complete. The English acquired the Krishna delta in 1766, and for 80 years they did nothing, while famines periodically desolated the land. When the rains failed in 1833 not less then 200,000 people died of hunger, and the Government lost revenue to the amount of 900,000 *l.* The Krishna delta covers an area of 10,000 square miles, with 1,100,000 inhabitants. The river flows to the sea on an elevated central ridge with the country falling off gently to right and left, and a general inclination to the sea. Bezoarah is exactly at the apex of the delta, where the river is 1,300 yards wide, flowing between two hills. The *anicut* consists of a broad basis of stone thrown into the river, and allowed to assume its own natural shape, 3,750 feet long, and 305 broad; faced with a casing of masonry, with scouring sluices at the flanks. From the east side the main channel is divided into two branches, one to Masulipatam and the other to Ellor. The main western channel divides into the Nizapatam and Comamur branches. In 1866 estimates were submitted for widening the channels so as to ensure a supply for 250,000 acres, making a total of 430,000. This work of enlarging, which is designed to develope and perfect the system of irrigation and navigation in the Krishna delta, was progressing in 1871–72, by means of loan funds.

Ponnár.

The construction of the Ponnár *anicut* was first proposed in 1849, at the ferry at Nellor, where the river is 520 yards in width; it was completed in 1855, but in 1857, during a hurricane, the *anicut* was breached for 282 feet, and the repairs were not completed until 1861. The area irrigated by the water thus obtained was 32,874 acres in 1863. The supply from the Ponnár is precarious, so that it is obliged to be supplemented by water kept in reserve in the Nellor and other tanks; and the water is only given out on one side of the river, the levels on the northern bank being too high. There is now a project to enlarge the main or Survapali channel from the Ponnár anicut, and so develope the irrigation.

Kaveri and Kalerun.

The Kaveri and Kalerun works are the most ancient, both as regards the native original portion and the English improvements. At the head of the island of Seringham, near Trichinapalli, the main river divides into two branches, the southern retaining the name of Kaveri, and the northern being called the Kalerun; which latter has a larger volume, a more rapid slope, and a more direct channel, and the tendency was for the smaller stream gradually to silt up, and the whole volume to pour into the Kalerun. This would have ruined the irrigation of Tanjor. The ancient native work, called the grand anicut, was a solid mass of rough stone 1,080 feet long and 40 broad, stretching across the bed of the Kaveri in a serpentine form, at the lower extremity of Seringham island. It was built upwards of 1,600 years ago.

Colonel (now Sir Arthur) Cotton's plans for the development of the Kaveri irrigation were sanctioned in 1836. Before the construction of his works the area of irrigation dependent on the Kaveri and Kalerun was 669,000 acres. The great object of Sir Arthur Cotton's plans was to send the excess of water in the Kalerun back into the Kaveri; by throwing a masonry anicut across the Kalerun, the crown of which should ensure about half the supply of that branch, passing into the Kaveri. The Kalerun anicut is 750 yards long, divided into three parts by two islands. The brick and stone mass rests on three lines of wells, six feet in diameter, sunk to a depth of six feet in the sandy bed of the river, and there are 22 sluices. The effect of this work was to deepen the bed of the Kaveri, and a masonry regulating dam was carried across that river in 1845. This has given regularity of current and decrease of violence in the Kaveri, and has also caused a clearing of the Kalerun; the two streams are thus

thus controlled in a most satisfactory manner. The Kalerun is the great drainage channel of the delta, while the Kaveri branch is a channel of irrigation only. All the numerous channels are solidly embanked, and an anicut was thrown across the Kalerun in 1836, 70 miles below Seringham, to regulate the supply for South Arcot. In 1836 the area irrigated from the Kaveri and Kalerun, in Trichinapalli, Tanjor, and South Arcot, was 630,613 acres. In 1850 it was 716,524 acres. The returns on the outlay may be estimated at 23½ per cent.

Delta works.

It is difficult to give the exact effect on cultivation of the great Madras delta works, because the irrigated areas are given by districts, not according to separate works, and may be due in part to supplies from tanks not receiving water from the delta works. But the areas of irrigation in the Godavari, Krishna, Nellor, and Tanjor districts, no doubt represent, very nearly, the areas irrigated by the Godávari, Krishna, Ponnár, and Kalerun delta works. This is—

Godávari district	-	-	-	225,032 acres.
Krishna district	-	-	-	144,591 „
Nellor district	-	-	-	176,927 „
Tanjor district	-	-	-	698,142 „
				1,244,692

This is probably below the truth, as the Kalerun works also irrigate tracts in Trichinapalli and South Arcot. The total area of irrigated land in the Madras Presidency amounts to 3,300,017 acres.

Vaiga.

South of the Kaveri lies the district of Madura, which depends for its supply of water, other than the direct rain fall, from the river Vaiga, rising in the hills of Travancor. The streams which form it have their sources in the slopes immediately overhanging the eastern valleys, so that their volume is very little affected by the south-western monsoon, and the Vaiga, as it flows by Madura into Ramnad, is never able to meet the wants of those districts, while none of its water reaches the sea. Both in 1864 and 1865 the channel was dry, 24 miles below the town of Madura. Ramnad looks in vain for water to irrigate its fields, while the supply is quite inadequate to meet the wants of Madura. Yet, while a scanty and insufficient supply reaches the thirsty eastern plains, the great river Periaur, with a volume far beyond the possible wants of the western coasts, runs to waste in the Cochin backwaters. By a cutting 140 feet deep, and a quarter of a mile long, and a dam 60 feet high, it is believed that the river Periaur might be turned over from the well-watered western to the parched-up eastern coast. This would change the whole face of the country, and a garden would soon extend from the mountains to the sea. The plans and estimates are not yet matured, but in another year we may hope to hear more of this interesting Periaur project.

Periaur project.

Tinnevelli.

Tinnevelli, the southernmost district of Madras, is watered from the Tambrapurni river, by means of anicuts placed at intervals across the stream, whence channels are led either directly for irrigation, or to supply tanks, the number of which in this district is exceedingly large, giving some index to the demand for irrigation. The anicuts are earth embankments with masonry sluices; they are very ancient native works, the largest being the Canadien Channel, running parallel with the river from Popanassum to Shermadevi, the land between the river and the channel being one sheet of paddy. As some portion of the water of the Tambrapurni still escaped to the sea, the construction of the new anicut, below all the others, was sanctioned, so as to secure this surplus for irrigation, and to supply the port of Tutikorin with water; these works are now well advanced.

Tambrapurni.

S. dry zone.

There remains the second zone of dry country, with a rainfall under 30 inches, extending down the centre of the peninsula to leeward of the western ghauts. It comprises the eastern half of the Bombay Presidency, great part of the Nizam's territory, the Ceded Districts of Madras, Mysor, and a great part of the Carnatic; it is watered by the upper courses of those rivers, the Godávari, Krishna, Ponnár, and Kaveri, the deltas of which have been so admirably fertilised by Sir Arthur Cotton and his great school of Madras engineers; it is emphatically the region of tanks.

V. IRRIGATION.

Tanks.

The Nizam's territory, Mysor, and the Carnatic are covered with thousands of tanks. In the fourteen districts of Madras there are said to be 43,000, all of native origin, with probably 30,000 miles of embankments, and 300,000 separate masonry works. The revenue dependent on tanks was 1,500,000 *l.* yet, in 1853, not one new one had been made in Madras by the English, though many had been allowed to fall into disrepair. In Mysor, until quite lately, the arrangements for their maintenance were also far from satisfactory. Tanks are formed in various ways, according to the accidents of the ground. Embankments are thrown across the gorges of valleys, high enough to retain a volume of water proportioned to the irrigable acres situated below. Descending terraces of land are occupied by a succession of reservoirs, the higher feeding the lower from its surplus supply. Long slopes have portions embanked on three sides, and the included space form a storage area for such volume of water as local wants may call for; some of these works are very ancient. The Viranum tank has an area of 35 square miles, and an embankment 12 miles long, still in full operation after an existence of fabulous duration; it secures an annual revenue of 11,450*l.* The Chembrumbaukum tank, in Chengalpat, looks like a picturesque natural lake. The embankment is over three miles long, and the tank maintains a sheet of rice cultivation, nearly 10,000 acres in extent. Its safety, during floods, is secured by six waste weirs (*calingulas*) with a total width of 676 feet of escape channel; the supply is from rainfall, and merely local drainage. The enlargement of this fine tank was sanctioned in 1867, at a cost of 41,000 *l.* In 1871-72 the excavation and earthwork was well advanced. The Kaveri-pauk tank, in North Arcot, is also of great antiquity. It is fed from the Pallair river, and has an embankment nearly four miles long, revetted along its entire length with stone; it irrigates nearly 7,700 acres. The most formidable cause of injury to tanks is the action of waves on the embankments during gales; it is counteracted by long slopes on the water face of the bank, and protecting coverings of rough stones. Most tanks are supplied with an outlet, called a *calingula*, generally of masonry, built in the land near one end. It is so much lower than the land itself that any superabundant water can pass over it. Towards the end of the rainy season, the *calingula* is closed, so as to keep the tank quite full. This is done by means of straw and turf, the crown of the *calingula* being usually supplied with a row of rough granite posts, three or four feet high, to support the wall of turf built up in front.

MYSOR.

In Mysor there was much activity with reference to the repair of tanks during 1871-72. As many as 645 tanks were repaired, and the cultivators themselves contributed no less than 1,514 *l.* towards tank maintenance, and voluntary labour to the value of 1,100 *l.* In future they will maintain the tanks themselves, as regards ordinary earth work and revetment repairs, as soon as they have been put into thorough working order by the Government. The chief new irrigation work in Mysor is the Sriramadevara *anicut* over the Hemáváti, which was completed in 1870-71. During 1871-72 the work on the first 26 miles of the channel was nearly finished. The supply of water is ample, and it will secure extensive rice crops.

BOMBAY.

Krishna.

The three rivers Bhima, Krishna, and Tungabudra, rising in the western ghauts, drain the greater part of the southern dry region, and unite to form what is usually called the Kistna, a short distance below the town of Karnal. On first issuing from the mountains, they and their tributaries traverse the thirsty lands comprised in the eastern section of the Bombay Presidency, the Deccan and the Southern Mahratha country. Considerable activity has been shown, of late years, in suggesting and maturing projects for utilizing the water of the rivers, as they flow across the Bombay territory. But the difficulties are not trifling. The rivers have so slight a slope that their fall would not gain much on that of a canal, while the steep transverse slopes of the valleys prevent canals from getting to any distance from their parent streams. The rivers are filled at the time of rains, but during the long dry season of eight months they become mere threads. The two objects to achieve are the retention of the copious supplies which run to waste during the rains, and the command of the barren lands on the sides of the valleys. The natives in this region left the main rivers untouched for storage purposes, for the most part, and were contented with the construction of small tanks on tributary streams.

Natural configuration.

The

The largest of the works in the Bombay Presidency that is completed is the Krishna (the name of the upper part of the Kistna River) Canal. A masonry dam is thrown completely across the river, on a rocky bed. A canal is excavated from above the dam, which is near Kurvar, in the S t ra district. Its bed is four feet lower than the crest of the dam, and it is provided with scouring and regulating sluices. It then meanders along parallel to the river, with a slope of a foot a mile, being carried across the drainage of the country by suitable works, and eventually recedes from the bank, so as to command a larger area of land. It is now in working order, and has ensured the safety of valuable crops over a considerable area. In 1871–72 the area irrigated was 2,038 acres, giving a revenue of 955 *l.* Krishna Canal.

The Ekruk tank is four miles north of the town of Sholápur, on the Adéla, a tributary of the river Bhima. The dam of earthwork, with masonry flanks, is thrown across the Adéla valley, and is 7,200 feet long, and 72 feet high in the centre, with a waste weir at the earth end. A lake is thus formed, with an area of six and a-half square miles, which submerged five villages, two of them in the Nizam's territory, causing an annual loss of revenue amounting to 100 *l.* On the other hand 35,840 acres are brought under the influence of the tank by three channels, two of them on a high level, to be used when the tank is full, for monsoon crops, which are 4 and 18 miles long respectively; the other a permanent channel, 28 miles long, for perennial irrigation. One of the high level-canals is now complete, and the permanent canal has been carried to the twenty-fourth mile. The dam was completed in 1869, and the Ekruk tank is now in working order. The water was given free of charge in 1871–72, it being the first year. Ekruk tank.

The Púna and Kirki water-supply works, also within the basin of the Bhima, consist of a masonry dam of great height, and 2,900 feet long, across the valley of the Muta river, to form a reservoir. Two open ducts lead the water to Puna and Kirki, where it will be distributed by iron pipes. This work was designed by Colonel Fife, and is now progressing rapidly. The centre portion of the dam has been raised for a length of 250 feet, to a uniform level of 53 feet above the river bed; most of the masonry work is complete, and the Puna Canal is well advanced. The Mudduk tank, with canals, in Dharwar, is a scheme which has been carried out, as well as that of the Kalhola-nullah; and several others are engaging the attention of the Bombay Government. Such are the proposals for a canal from the Gokak river in Belgaum, for a canal from the Mulpurba river into the Dharwar plains, and for carrying out the Churdi project which was suggested by Sir George Wingate many years ago. The valley of the Yerla, a tributary of the Krishna, has also been surveyed for storage tanks, and the new canal from the Yerla is now in working order, as well as the Chikli Canal, both in Sátára.

Muta tank.
Mudduk tank.
Kalhola Nulla.
Gokak project.
Mulpurba project.
Churdi project.
Yerla Canal.
Chikli Canal.

There remain the Ceded Districts of Belary, Karnal, and Cuddapa, in the midst of the dry zone, with a rainfall at Belary of only 22 inches. The Tungabudra flows round the northern borders of Belary and Karnal, and offers the food-giving water to those who know how to get it. But the country beyond the mere valley of the river has thirsted for lack of sufficient water during long centuries. Often the monsoon rains fail, and then people die of hunger by scores. Yet on the banks of the Tungabudra, and within the Belary district, stood the famous city of Viziyanagar, where the old travellers Conti and Cæsar Frederick saw cool channels flowing through the streets, and groves and gardens concealing the suburbs. The Rajahs of Viziyanagar constructed dams across the Tungabudra in 1521, and in subsequent years, by throwing enormous stones on the rocky ridges in the river bed, and leading off canals. Nine such anicuts were built, and channels with a total length of 89 miles were led into the valley, to increase its fertility, and water the crops. But they were never brought to the country above, which really requires water; and this problem remained for us to solve.

CEDED DISTRICTS.
Tungabudra.

The arid plains of the Ceded Districts continued to thirst for water. At last it was resolved that an English company should have an opportunity of trying whether the employment of private enterprise and English capital could be advantageously adopted in aid of Governmental action, in the construction of works of irrigation in India; and these Ceded Districts were selected as the scene of the experiment. In 1860 the agreement was made with the Madras Irrigation

Madras Canal and Irrigation Company.

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Canal Company; but one important element, the enterprise, was omitted, for the Company's capital of 1,000,000 *l.* was raised by means of a Government guarantee to pay interest at 5 per cent.

Sanka sala Project.

The final project, which was sanctioned in 1861, is to divert, by means of an anicut at Sankasala, 17 miles above Karnul, a portion of the flood waters of the Tungabudra into the valley of the Ponnár, through a capacious canal along the right bank of the former river, and across high land, forming its watershed to the east; also to complete a line of water communication to the coast, by improving the beds of the Kundar and Pennair to fit them for navigation; and by excavating canals, overcoming the slopes of the country by a succession of locks, and providing water for the dry season by constructing reservoirs. The irrigation of the Bellary district was also a part of the original plan.

Sankasala anicut.

At Sankasala a reef of rocks forms a barrier in the river, and furnishes a base on which to erect an anicut. Its height is 12 feet, and the length 1,500 yards. From its right flank, the main canal is carried parallel to the river for 17 miles, with only one bank from 16 to 34 feet high, the other being formed by the natural rise of the ground. Thus a quantity of land is submerged, while the single bank is subject to violent action from waves, owing to the extensive spread of water. Close to Karnul, the canal is taken across the Hindri river on a fine aqueduct. At Metacondal, 72 miles from Sankasala, there is a cutting a mile long, which takes the canal from the Tungabudra basin, across the water parting, into that of the Ponnár, descending the valley of the Kolair, to the Ponnár itself, by a succession of locks, in a fall of 236 feet. From June to November there is plenty of water from the Tungabudra, but from November to June not a drop can be abstracted from that river, without injury to the Krishna delta irrigation, so that capacious reservoirs for storage are essential to the success of the scheme. The scheme was to continue the canal down the Ponnár valley, with an anicut in the Somaishweran gorge, to the sea at Krishnapatam. The canal is completed from Sankasala to the Ponnár, 143 miles, but not so as to be capable of bearing the full amount of water, owing to weakness of construction. Another defect is that sufficient waterway is not provided for the passage of flood waters either under the canal or by surplus weirs in its banks for the escape of storm waters, entering it when full.

Canal with one bank.

Hindri aqueduct.

Metacondal cutting.

The contract between the Secretary of State and the Company was signed on the 3rd of June 1863, and on the 10th of July 1864 water was first admitted from the Tungabudra into the main canal at Sankasala. In July 1864 a flood undermined a part of the anicut, and the body of the work was breached for 22 yards, right down to the rock. The damaged part was rebuilt in the following dry season. By May 1865, the Company had a balance of about 130,000 *l.* out of their guaranteed 1,000,000 *l.* It became apparent that the project could not be completed for the original sum, and on the 2nd of October 1866 the Secretary of State granted a loan of 600,000 *l.*, at 5 per cent. interest, to the Company, on the condition that if the works were not completed and placed in perfect working order by the 1st of July 1871, the Company, if so desired, should surrender the whole of the works to the Government, which would pay the capital laid out on them. By that date the main canal was made, all the sluices in it were built, and the channels for distribution were in a more or less advanced state; 216 miles of them being finished, commanding 91,567 acres. The area irrigated in 1870–71 was, however, only 1,516 acres. It was hoped that in 1871–72, the area would be increased to 8,883 acres, yielding a return of 5,397 *l.*; but it appears that if the full amount of water was admitted into the canal the embankments and walls would fail at many places. No project for a reservoir has been completed; and the irrigation of the Belary district is still unprovided for, two estimates amounting to about a million and a half each, submitted in 1867 and 1870, not having been sanctioned.

Yet the main canal and works are considered by the Company, in a general sense, to have been completed by July 1871; and the Company propose to continue them, and to pay back the Government loan. The water rate, payable to the Company, is six rupees per acre per crop.

Employment of companies.

The experience of the Madras Irrigation and Canal Company is not generally considered favourable to the employment of companies, with guaranteed interest on their capital, to execute irrigation works in India. The company in Orissa, without guarantee, was unable to carry on the works it had undertaken, and sold

sold them to the Government. Lord Lawrence, in 1864, decided that the State should undertake directly all the irrigation works that it could practically carry out, in preference to entrusting them to private companies, and that the funds for their construction should be borrowed, if necessary. The famines of 1837-38 and 1860-61 in the North West Provinces, and of 1865 in Orissa, had shown the urgent necessity of securing the country, by the provision of irrigation works, wherever it was possible to do so, from the recurrence of such calamities; and in 1867 the Secretary of State fully accepted the principles advocated by Lord Lawrence since 1864. In order to give the greatest possible efficiency to the action of the Government in relation to the spread of irrigation, an inspector general of irrigation works was appointed, and Major General R. Strachey was nominated to that important post in January 1867; he has since been succeeded by Colonel Rundall, who had previously had charge of irrigation in Bengal. In March 1867, Colonel Fife was appointed Irrigation Secretary in Bombay, and Colonel Anderson was nominated to a similar post in Madras. Colonels Greathed and Crofton received similar appointments in the North West Provinces and the Punjab. On the new system the first step is to fix the sum to be assigned for irrigation works from the ordinary revenues of each year, which is not to be transferable to any other classes of works. The grant thus made must first be wholly expended before any charge can be allowed to be thrown on the loan fund. Then the works to be aided by borrowed funds must have been sanctioned on regular designs and estimates, and the cost for any such work must not be less than 10,000 *l.* They must also be of a nature which will admit of a proper revenue account being drawn up, from which the exact results of each work can be seen. In special cases minor works may be grouped together to bring them within the requirement of the rule respecting the loan funds. Thus very great activity has been shown in the prosecution of works of irrigation; existing works have been watchfully maintained and extended; numerous important projects have been matured and commenced, and efficient machinery exists for the continuous prosecution of these great undertakings.

Irrigation works to be executed by the State.

Loans.

Inspector General of irrigation works.

Irrigation officers.

Rules for works executed by loans.

In the moist belts, where there is a superabundance of rain, works of irrigation are superfluous; but works of equal importance, as regards the welfare of the people, become necessary in their place. Instead of bunds and channels to raise the water and spread it over the land, embankments are needed to preserve the crops and villages from destructive floods.

Embankments.

The maintenance of the river embankments in Lower Bengal is an important part of the duties of the Irrigation Department, for the cultivation of the land is entirely dependent on their efficiency. Vast tracts of thickly populated country are below the level of high tides on the lower part of the Hugli, and below the flood levels of the rivers, in every part of the valley of the Lower Ganges. There are 2,100 miles of embankments under the charge of the Irrigation Department in Bengal, most of them maintained at the expense of the State. An idea may be formed of the importance of this charge from the fact that a single breach in the embankment of the Cossye inundated 36 square miles, and completely destroyed the crops. The embankments have to be made up to the proper height and section during the dry months, and carefully guarded in the rainy season.

Bengal embankment.

A very extensive series of embankments is under construction along the banks of the Irawadi, in British Burma. During the year 1870-71 the works were in abeyance, but surveys were in progress on several lines on both banks of the river. In 1871-72 work was resumed. Two embankments were sanctioned (the Leymyethna and Zalun) which will afford protection to 150,000 acres at a total cost of 4 *s.* per acre; iron sluices were provided in the Henzada embankment for passing off water lying against it after the subsidence of the floods, and several surveys were in progress.

Irawadi embankments.

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Importance of means of communication.

THE influence of efficient means of communication between the various provinces of India on the welfare of the people is strikingly shown in several passages of the Administration Reports for 1871-72. It will be remembered, for example, how the short harvests in the Central Provinces were so efficiently made up by grain imported from Chattisghar, that the prices were not even affected. On the other hand, the famine of Orissa is to be ascribed to the absence of means of communication. There was no made road, no navigable canal, no survey of the coast. The subject of Indian communications includes railways, roads, navigable canals, and harbours. For sea-borne traffic, as was shown on the occasion of the Orissa famine, is quite as important as that by land.

Railways.

Mileage completed.

The main system of Indian railways is nearly completed; and the State railways, which are now under construction or proposed, will, for the most part, supplement the existing trunk lines. In the year under review, there were 5,204½ miles of railway open for traffic, of which 5,136 were constructed by means of guaranteed capital, and 68½ by the State. Of 2,438 miles in course of construction, 935 were by companies, and 1,503 by the Government. As no more lines will be entrusted to companies, all railway construction will eventually be in the hands of the Government.

Main lines opened.

Completion of the link between Bombay and Madras.

East India chord line.

Lines are now open from Calcutta to Multan and Bombay, and from Bombay to Madras. The completion of the latter line was effected on the 1st of May 1871, on which day the Great Indian Peninsula joined that from Madras, by opening the piece between the Krishna and Ráichur; but the bridge over the Krishna is not yet completed. In 1871 the chord line of the East India Railway was also opened, 124 miles long, and the branch (23 miles) to the Kurhurbari coal fields. Up to March 1872, the sum of

Cost of railways.

Receipts in 1871.

Expenses in 1871.

Interest paid in 1871.

90,009,622 *l.* had been expended by the guaranteed railway companies, and it will require 8,000,000 *l.* to complete their lines. The gross receipts in 1871 were 6,146,130 *l.*; the working expenses 3,302,050 *l.*; leaving a net profit of 2,844,080 *l.*, of which 2,839,338 *l.* was earned by the guaranteed lines. The guaranteed interest was 4,422,243 *l.*, so that there was a loss of 1,582,905 *l.* to the State. But the railways are now almost completed, so that with the cessation of heavy outlay on construction, the financial position may be expected to improve.

East India Railway.

Great Indian Peninsula Railway.

Madras Railway.

Bombay and Baroda.

Great Southern of India.

The East India Railway, with its chord line, and Jabalpur branch, altogether 1,504 miles, is all open for traffic. The Great Indian Peninsula Railway (1,270 miles) is completed, with the exception of the bridge over the Krishna. The Madras Railway (862 miles) is all open, except a short branch to the foot of the Nilgiris. The Bombay and Baroda Railway is finished for 390 miles; and the Great Southern of India is open for 168 miles out of the 378, which will complete it to Tutikorin. Sanction was given in August 1871, for its extension, by Dindigul and Madura to Maniachi, with branches thence to Tinnevelli and Tutikorin.

Oudh and Rohilkhand.

The Oudh and Rohilkhand Railway is progressing, and is opened for traffic for 120 miles, 42 from the Ganges at Cawnpur to Lucknow, and 78 miles in other directions. The bridge over the Ganges (three miles, two and a half of which is over the Khádar lands) is of wrought iron lattice girders. Between Lacknow and Murádabad the railway crosses 32 rivers and 60 miles of inundated valley. The line will eventually be prolonged to the foot of the hills in the direction of Naini Tal, the survey for that purpose being at present in progress.

State Railways.

Lahore to Peshawar.

Break of gauge.

Numerous State railways on the narrow gauge, either commenced or under consideration, will complete the network of communication over nearly every part of India. The most important State railway is that from Lahor to Peshawar (270 miles). It necessitates the construction of bridges over the Punjab rivers, a most formidable series of works; but the operations are at present confined to the section between Lahor and Ráwal-Pindi. It is intended to construct it on a gauge of 3′ $3\frac{3}{8}$″, which will be the same as that of the other State railways, but involves a change at Lahor, as the line from Calcutta is on the broad gauge

gauge up to that point. The narrow gauge has been adopted for the sake of economy, an advantage which is believed to outweigh the inconvenience of a break of gauge at Lahor. There has been much discussion on this question, which is not yet finally settled. The next State railway in order of importance, is what is called "the missing link," the Indus Valley Railway (480 miles), running from Multan to Bháwulpur and Rohri, and thence to Kotri along the right bank of the Indus, which it crosses at Rohri. This line will complete the railway communication between the port of Karáchi and the districts of the Punjab.

Indus Valley lines.

The Rájputána State Railway (370 miles) has been commenced. It runs from Agra by Bhurtpur and Jaipur to the Sambhar Lake, being joined at Khera by a branch from Delhi. The Holkar Railway (86 miles), which has been begun under contract, is to connect Indor with the Khundwa Station of the Great Indian Peninsula Railway.

Rájputána State Railway.

Holkar State Railway.

In Bengal there are two State Railways. The Eastern Bengal, the extension of which to Gulundu was opened by Lord Mayo on 1st January 1871, now consists of 159 miles of single line. Unfortunately, the floods breached the line in August and November, and traffic was more or less interrupted. The Calcutta and South Eastern line can hardly be anything but a burden. It was made in the expectation that Port Canning would become a thriving place; but that scheme has been abandoned, and the goods traffic of the railway is confined to firewood and hay. The Nalháti and Azimganj State Railway, with a 4-feet gauge, connects a place near Murshidabad with the East Indian line, and is considered to be a most successful example of the working of a light cheap line. The Northern Bengal Railway is a projected line from the Ganges to the foot of the Sikkim Hills (211 miles). It has been surveyed, and as it will pass through the rich and populous districts of Pubna and Rájsháhi, and tap Kuch Behar and the tea lands of Darjeeling, it is likely to be remunerative.

Eastern Bengal.

Calcutta and South Eastern.

Nalháti line.

Northern Bengal.

In the Central Provinces the short State railways are very important, as completing the system of communications in the cotton and coal yielding districts. Those from Khámgaon and Amraoti, seven and a half and five and a half miles, are completed; and a portion, 15 miles long, to the coal beds of the Wurda Valley, is sanctioned. It will eventually be extended for 48 miles, on the narrow gauge of 48 inches, to the coal shaft at Warora. In the Nizam's territory lines of railway are sanctioned from Gulburga to Haidarabad, from Haidarabad to Chanda, and from Warangal to Masulipatam. Surveys are in progress for two alternative lines from Nágpur to the great corn-producing district of Chattisgarh, which will tap a country of great importance, where food has often been wasted for want of consumers. This district produces very largely in excess of the wants of its population, and a railway opening it to the rest of the world would be one of the most important works of communication that could now be undertaken.

Khamgaon and Amraoti.

Wurda Valley.

In Nizam's territory.

Nágpur to Chattisgarh.

In the Southern Mahratha country, through which the cotton of Dharwar and the Ráichur Doab has long wanted rapid and convenient means of transport to the ports of shipment, the necessary lines of railway have been projected. The survey of a line from the port of Karwar to Hubli and Gadak (144½) has been completed, and extensions from Gadak to Belary, and from Hubli to Sholápur, are also being surveyed. The line from Bangalor to Mysor has been indefinitely postponed, after 13,600 *l.* had been expended on surveys, in order that the surplus revenue of the State may be expended on the far more important work of repairing the tanks.

Karwar to Hubli.

Mysor lines.

Plans and estimates have also been prepared for a railroad from Rangún to Prom.

Line from Rangún to Prom.

The great undertakings connected with the construction of roads have, for the most part, been completed; and some of them have even been superseded by the railways. The Grand Trunk Road up the Ganges valley is parallel with the East Indian railroad; and the monument recording the construction of the road up the Bhore Ghaut, by Sir John Malcolm, must be a strange commentary, to the few who ever now see it, on the rapid changes typified by the adjacent wonderful line of railroad up the zigzag incline. But other great roads will not be superseded by the railways. The splendid engineering works leading to the Himalayan sanatoria, to the coffee districts of Wynaad, and to the Nilgiris, will be-

Roads superseded by railroads.

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be used for many a long year; as well as such a line as that called the South Western Trunk Road, from Calcutta, through Orissa, to Ganjam in the Madras Presidency, which is now declared to be fully completed throughout.

South Western Trunk Road.

Most of the new roads have been undertaken with a view to forming feeders to the railways, and the local roads have been maintained and constructed by local cesses. In Eastern Bengal roads, except in the hill tracts, are in competition with excellent water carriage, so that, as a rule, it is not considered necessary to spend very large sums upon them. This is the decision the Lieutenant Governor has come to with reference to the Silhet and Cachar Trunk Road. In Western Bengal a road has been commenced, 27 miles long, to connect the Girhidi station of the East India Railway with the Grand Trunk Road at Dunwi, and the Chota Nágpore districts; and the Bugodur and Hazaribagh road, which is to be completed, brings the latter station in direct communication with the railway. Much progress has also been made with a feeder to bring the Purulia, Ranchi, and Chaibasa districts into communication with the railway. The Ganges and Darjiling road is now completely bridged, with the exception of the Mahánadi at Dingughat, and metalled throughout. The hill portion is largely used for trade purposes. In the North West Provinces the principal work has been the completion of the Naini-Tal cart road, and of that from Sháhjehánpur to Sítapúr; and the progress made on those from Banda to Ságar, from Sursa Nadi to Rewári, and from Almora to the Ránikhet road. In Garhwal 123 miles of road from Srinagar to Niti Pass, have been completed to a width of 10 feet, where, four years ago, there was a mere path, in many places almost impassable; it is bridged throughout, and is an important line of communication for traders from Tibet. In the Punjab, notwithstanding the heavy floods of 1871, the trunk line of road from Delhi, by Jallandar, to Lahor, was maintained in a fair state of efficiency; but its continuation to Pesháwar has much deteriorated of late years, owing to heavy additional traffic caused by the construction of the railroad. In 1871 repairs and renewals had the effect of restoring it to efficiency. Many other repairs and improvements have been effected, especially on the Kangra valley road, and on those from Ráwalpindi to Umwi, and Pesháwar to Kohat. The grain markets show that the roads have provided a means of intercommunication in the Punjab, which is sufficient to equalise prices in a great measure, and to ward off distress when the failure of crops is local. In Oudh, also, much work was done in metalling and improving roads, and planting trees.

Bengal roads.

Roads in the North West Provinces.

Punjab roads.

In Berár three principal lines of road, in addition to the branch railway, have been under construction for some years; namely, from Akola to Máligám, and Hingoli, from Murtizapur to Karinja, and from Badnera, by Amraoti to Morsi, with a branch to Elichpur. The first has been completed as far as Basim. The need for good cotton roads in the Berárs, leading from the railway stations to the chief cotton marts, has long been felt; and as long ago as in 1863, 20,000 *l.* were granted with a view to making them passable during the dry season of seven months. A committee in 1861 had recommended the construction of 14 roads across the Purna valley, averaging a length of 25 miles each. The black cotton soil of this valley is 40 to 100 feet deep, and the country is almost impassable during the wet season. Besides the above three lines, to be completed as first-class roads, the fair weather tracks will be available during the cotton season.

Roads in Berar.

In 1862 there were not 18 miles of road fully opened throughout the Central Provinces. Now, two great trunk lines, called the northern and eastern roads, start from Nágpur as a centre. The northern road leads to Jabalpur, through Seoni, a distance of 165 miles. This route has ceased to be of more than local value since the railway has been opened through the Narbada valley, from Khandwah to Jabalpur. But for many years the north-east terminus of the Great Indian Peninsula Railway was at Nágpur, and that of the East Indian Railway at Jabalpur; and in those days the line between Calcutta and Bombay passed over this so-called "northern road," which was a very important link of the chain of communication. The Seoni plateau is about 1,500 feet above Nágpur, and, until this road was made, its products could only be brought to a market by carriage on pack animals. The road, as regards engineering and alignment, is one of the best in the interior of India. The eastern road leads from Nágpur to Ráipur, in Chattisghar. Very little work has been done on it during

Roads in the Central Provinces.

during the last two years, because the prospect of a railway from Nágpur to Chattisghar made it probable that it would not hereafter be required as a first-class line of communication. It is, however, most important as an outlet for the surplus grain of Chattisghar, which is always an exporting country. The distance is 180 miles, of which one link of 30 miles is quite unmade. Some large streams are the only natural obstacles. The Sagar road is under construction, as the connecting link between Bandalkhand and Western India. The portion at present in hand is that from Sagar to the Kareli Station of the Great Indian Peninsula Railway, 12 miles west of Narsinhpur. This road is eventually to be continued up to Jhansi, but it will fully task the Central Provinces Budget for some years to come to make it up to Kareli (75 miles). Sagar is much higher than the Narbada valley; and the ascent, with the crossing of many streams, will involve a very heavy outlay. Hitherto there has been no line of communication between Bandalkhand and Western India.

On all the roads of the Central Provinces foundations are easy, the mountain passes present no engineering difficulties, but the one serious obstacle, common to all, is insufficiency of funds. Numerous district roads have been completed or improved, and the bridge over the Kanhan River, 80 feet long in 12 spans, is progressing.

Bombay roads.

In the Bombay Presidency much progress was made in completing the communications across the western ghauts from the sea to the Great Indian Peninsula Railway. The embankment of the Konai nulla at the port of Karwar is nearly completed, and the Arbyle ghaut road thence to Dharwar has been repaired. On the Parpuli ghaut road, in Belgaum, seven out of the eight large bridges had been completed; and in the Kolapur district great activity was shown in road making, no less than nine roads having been constructed or improved. In Sátára road is in progress from the Konkan up the ghaut to Mahabaleswar; and a bridge was completed across the Krishna at Wái. A great deal of work has also been done in Khandesh. The most important bridges under construction are those over the Quoina, Shirwal, and Yerna in the Sátára district; the Khall bridge near Margam in Kolába, and the Gangawali bridge in Canara.

Water communication.

The amount of water communication in India is very great; and a part of it has been indicated in the chapter on irrigation, for several of the canals are also adapted for navigation.

By navigable canals.

As soon as the Sirhind canal works are completed there will be navigable communication from Calcutta, up the Ganges, by the canals to the Satlej, and down the Indus to Karáchi. The delta canals of Madras are also much used for boat traffic, as well as the high level, and Cochrane's Canal. But it is in the belts of greatest rainfall, the delta of the Ganges, the valleys of the Brahmaputra and Irawadi, and on the coast of Malabar, that water is most largely used as a means of communication.

Naddea rivers.

The rivers in the Bengal district of Naddea, namely, the Bhagirathi, Mattabangah, and Jalangi, have long been used as fluvial highways; and during 1871-72 a least depth of 4 feet, and a least width of channel of 150 feet, was maintained on the Bhagirathi. The revenue derived from tolls on the Naddea rivers amounted to 20,000 *l.* The whole outlay on Bengal canals during the year was 18,962 *l.*, and the income 36,334 *l.*, showing the existence of a great and increasing traffic.

Irawadi.

There are two steam navigation companies running steamers on the Irawadi, which made 60 trips in the year. There are also 19,400 boats employed in the Irawadi carrying trade.

Godávari navigation project.

One great scheme, which has occupied much attention during the last 20 years was, after an enormous expenditure, finally abandoned in October 1871. This was the famous Godávari Navigation project, which was first urged upon the notice of the Government by Sir Arthur Cotton in 1851. Up to 1861 the sum of 20,000 *l.* had been spent on preliminary surveys and other arrangements. The drainage system of the Godávari, includes the rivers Wurda, rising in the Satpura hills, and separating the Berars from Nágpur, which is joined by the Painganga a little before reaching Chanda. The united stream flows on until it receives the Wainganga, and 90 miles lower down is the Godávari, which joins the other rivers after a course of 650 miles from the Western Ghauts. From this point to the sea is a distance of 250 miles. There are three great obstructions to the navigation, caused by rocky barriers. The first is 90 miles above the anicut at Dhauleswaram, at a place called Badrachallham, and is

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20 miles long. The second is 14 miles long, and is 68 miles above the first barrier. The third is 75 miles above the second, and is 35 miles long; while the distance of the third barrier from Chanda, in the Central Provinces, is 75 miles, and from the cotton mart of Hinganghát 115 miles.

Anticipations respecting the results of the Godávari works.

There never was any hope of the Godávari being made navigable all the year round; but it was thought that a boat might make a trip down in 10 days, and return the same season, by being towed up, in $2\frac{1}{2}$ months. Hinganghát is halfway between Bombay and the mouth of the Godávari, and it was calculated that the river would convey cotton at one-third the rate of the rail-road. Linseed, ghi, and gingelly, it was thought, would also be sent by the river; while the importations up stream would be salt, cocoa nuts, some European goods, and military stores. But these hopes have since been abandoned, so far as a remunerative return on the outlay is concerned.

Godávari works.

The Godávari works consist of dams or anicuts, canals and locks round the barriers, and clearances of rock in the river bed, including a cutting through a ridge of sandstone rocks at Albaka, between the first and second barriers. The preliminary work consisted of a survey of the river, and a complete profile of the river as far as Chanda. This was commenced in 1854, and the works at the first barrier were begun in 1861. Temporary tramways were constructed round the barriers, in anticipation of the completion of the canals. When Sir Richard Temple inspected the works, in January 1863, 700,000*l.* had already been expended. He recommended that the works at the first and second barrier, and in the river up to the foot of the third barrier, should be proceeded with, at an estimated cost of 255,000*l.*, so that the navigation might be open to the foot of the third barrier by May 1865. The road from Nágpur to Chanda was to have been extended to this point. By August 1865, two-fifths of the anicut at the first barrier, with masonry works, were completed. But in 1871, although the canal was almost completed, the anicut remained unfinished. A channel had, however, been cut through the Albaka reefs. The second barrier works were entirely suspended, and in an incomplete state. The third barrier works were not commenced. There was a steamer towing boats from the second barrier to the coast, which carried a total of 188,312 tons of cargo; and the "Wainganga" steamer continued the communication between the second and third barriers; but the amount of traffic was small.

Abandonment of the Godávari works.

In a Despatch, dated August 1871, the Secretary of State proposed that the navigation works should be completed on the smallest possible scale as far as the foot of the third barrier, whence a road should be made to Chanda. But in October of the same year, at the request of the Government of India, the whole scheme was abandoned, as involving expenditure which did not give promise of any adequate return.

Malabar back-waters.

The important line of water communication, parallel to the western coast of India, which is included in the Malabar and Travancor backwaters, was reported upon by Mr. Robertson in 1871. By the completion of the cut through the Warkallai barrier, and by making another cut from the Venjali lake to the Tirur station of the Madras Railway, there will be a continuous line of water communication from Budagivi, north of Bepur, to Trivandram, the capital of Travancor, whence the Victoria Canal extends southwards towards Cape Comorin for 15 miles, which is to be extended 30 miles further. The great value of this system of natural canals is best shown during the south-west monsoon. In its centre is the harbour of Cochin, which is capable of being made the finest close harbour in the world; 10 miles broad at its southern end, and from 10 to 48 feet deep. The canoe boats on the backwaters draw half a foot of water, and carry 2,000 to 3,000 lbs.

Warkallai barrier.

each. The only obstruction is the Warkallai barrier, between Cochin and Trivandram, a spur of the ghauts, consisting of a ridge of laterite hills, about six miles wide, with a summit level of 180 feet, ending abruptly in a line of cliffs washed by the sea. From the south a ravine, covered with paddy fields, and lined with cocoa-nut and jack trees, runs up to within half a mile of the summit ridge; and there is a similar ravine on the north side. The sea-cliffs are of soft laterite, intersected by five ravines, and contain a remarkable deposit of lignite. There have been four distinct plans for cuttings through the Warkallai barrier; but the one finally adopted is that of Mr. Barton, the engineer to the Travancor Sarkár. It consists of a cutting through the hill, which, when

the

KARACHI HARBOUR.

KARACHI
Govt House
Prave Hall
Railway
Scale of Nautical Miles
Chinna Creek Backwater
Reservoir
Rhamari Railway
Clifton Sanatorium
3 fathom line
5 fathom line
Kiamari Ground
Oyster Bs
Bara Andai 30 feet
Ghisri Banders
Manora Pt
90 feet high
Light F. 120 ft visible 16 miles
Entrance Channel
Bar
Breakwater
5 fathom line
1 fathom line
Anchorage in N.E. Monsoon
Ghisri Mouth of the Indus

INDIAN OCEAN

Pt Calimere
Kotipatnam
Tondi
Pt Pedro
PALK STRAIT
Surveyed
Jaffna putnam
Mutapeta
Kilakari
Rameswar I.
Adams Bridge
Mannar I.
Talimukam Pt
Tuticorin
Pearl Bank
GULF OF MANAR
Partially
Pt Manapaud
Calpentyn
CEYLON
Scale of Nautical Miles.
Cape Comorin

SCHEMES FOR A PAMBAN SHIP CANAL

Scale of Nautical Miles
Palk Strait
5 fathom line
3 fathom line
Pamban Pass
Light F. 97 ft vis. 10 m.
Ramnad
Rameswar
Proposed Channels
Mutapeta
Kiphuseramé
Proposed Channel
Beacon
Shingle Islets
Port Lorne
Manauli I.
Coral Reefs dry at Low Water Spring Tides
Musul I.
Muli I.
5 fathom line
6 fathom line
Gulf of Manar

Trav. Sau. Lers, India. Pilot, 1873.

the depth reaches 70 feet, is to become a tunnel. This happens in two places, and the length of the two tunnels is 2,000 feet. The canal is 25 feet wide and four deep. The work is progressing towards completion, when there will be a continuous water highway for the whole distance from the Madras railway, at Tirur, to Trivandram, with a large and increasing traffic.

Harbours and anchorages.

As a means of communication between India and the outer world, the harbours and anchorages have been the subject of much attention from the Government during the last few years; and in September 1870, Mr. Robertson, a civil engineer of eminence, was appointed to prosecute inquiries with a view to the improvement of some of them. During 1870-71 he examined the Madras anchorages on both sides of the peninsula, and in 1871-72 he was on the Bengal and Bombay coasts, and also investigated the schemes for a ship canal between India and Ceylon. The trade ports of India, if every place frequented by native craft be included, are exceedingly numerous. In a list of Indian ports and harbours, prepared for Dr. Forbes Watson by Captain Taylor, as many as 656 are enumerated and described. But it will only be possible in this place to pass the more important ports of India in review in their geographical order, from Karáchi to Chittagong.

Mr. Robertson's mission.

Karáchi Harbour works.

The harbour of Karáchi, a few miles to the west of the mouths of the Indus, occupies a most important position as the port of Sind and the Punjab, with a large and rapidly increasing trade. Its western half is formed by a long narrow strip of sand ending with the rocky promontory of Manora Head; and its eastern by the island of Kiamari. Thus, there are two openings, one between the main land and the east end of Kiamari, called the Chinna Creek, and the other being the main entrance used by ships, between the west end of Kiamari and Manora Point. A bar had formed across the entrance, stretching for nearly a thousand yards, and the depth over it, at low water spring tides, was from 9 to 12 feet. This bar is the result of the waves raised by the south-west monsoon acting on the loose sand lying immediately off the extremity of Manora Point. For the improvement of the harbour of Karáchi, the problem was to remove this bar and produce a deep channel. The depth upon the bar appeared to depend on the velocity and quantity of tidal water passing in and out of the harbour at each tide.

Plan of the Karáchi works.

In 1856, Mr. Walker, the eminent harbour engineer, was consulted on the subject, and he afterwards reported in conjunction with Mr. Parkes, who is now the consulting engineer of the harbour works. Mr. Parkes visited Karáchi in 1858 and again in 1864 and 1870. Their advice was to increase the volume of water that passes through the entrance at each tide, to give it the right direction and to shut off, as much as possible, the heavy south-west seas from the mouth of the harbour. Sir Charles Napier had thrown a mole across, without openings, from Karáchi to Kiamari Island. To gain the first object, it was necessary to block up Chinna Creek, and open a passage in the mole, so that all the water might flow in and out at the same entrance. The second point was secured by running out a long groyne from Kiamari Island to seaward, so as to guide the whole force of the scour on to the bar; and the third by a breakwater extending from Manora Point.

Progress of the works.

The opening in the Napier Mole (1,200 feet) was made at a cost of 48,742 *l.* The Kiamari Groyne was commenced in November 1861, and completed in 1865, at a cost of 48,317 *l.* The closing of Chinna Creek, 980 feet across, is not yet completed.

Manora breakwater.

The present west channel began to deepen and open out as soon as the Kiamari Groyne was finished, and a spit off Deep Water Point, on the opposite side, had been removed. The construction of the Manora breakwater was then commenced, in 1869, and completed on 22nd February 1873.

Nature of the ground.

This work is especially interesting as being the first that has been constructed in deep water, to break the force of the heavy seas raised by the south-west monsoon on the west coast of India. The breakwater runs in a S.S.E. direction from the southern extremity of Manora Point, and extends 1,500 feet from low water mark. For the first 500 feet the water is shoal, and the bottom irregular, consisting of conglomerate rocks wholly or partially imbedded in sand, and having a depth of water upon them of 12 to 16 feet at low tides. For the remaining 1000 feet the bottom is sand resting on a bed of clay, a few feet below the surface, and the depth at the outer end is 30 feet at low tides.

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Mode of construction.

The mode of construction adopted was novel. It consisted of throwing a bank of rubble stone out of boats, until its top reached the level of 15 feet below low water. The surface of this bank having been levelled by divers, a superstructure was built upon it consisting of concrete blocks. each 12 feet long, 8 high and 4½ wide, weighing 27 tons. They form a wall 24 feet high and 24 feet wide, the top being at about the level of high water mark. These blocks were made on shore, in moulds, of suitable proportions of conglomerate and sand, mixed with one-eleventh of the total bulk of Portland cement, in Messent's patent concrete mixers. After being allowed a few weeks to harden, they were lifted by a specially designed hydraulic press on to the trucks, and conveyed to the breakwater. The trucks were then run under the "Titan," a strong frame work of wrought iron, resting on eight wheels which ran on rails, on the finished part of the breakwater. The top of the "Titan" consists of a platform, the outer end of which projects 25 feet beyond the foremost wheels, so as to command that distance in advance of the finished work. This projecting platform carries a "traveller" and "cub," capable of moving forward and sideways, which lifted the blocks from the trucks, and lowered them into their places. The whole is worked by a six-horse power steam-engine placed at the landward end of the platform, to which additional stability was given by a tank capable of containing 40 tons of sea water, to counterbalance the overhanging weight of the blocks and machinery.

Concrete blocks.

The "Titan."

Mode of working.

When a sufficient length, about three rows of blocks, was completed, the "Titan" was bodily advanced into a new position, to set another length. The force to which the blocks are exposed by the weight of water falling upon them, when the sea breaks over the work, is enormous. A few of the harbour side blocks (26 in all) have been drawn out from this cause, but the damage has been repaired, and its recurrence can be prevented by the adoption of some simple means, when the foundation has become solid.

Cost of the Karáchi works.

The total cost of the Karáchi harbour works up to May 1872 was 452,182*l.*, and when completed it will be 468,651*l.* They have effected considerable increase in the capacity of the harbour for tidal water, useful in scouring the bar; the Kiamari groyne has produced satisfactory results in removing sand from the harbour by scour; and the Manora breakwater, by protecting and sheltering the bar, will remove the causes of its formation, which are the monsoon waves breaking along its line. These, combined with dredging, are expected to secure a permanent and deep entrance to the harbour.

State of the entrance.

The direct entrance to the harbour has now permanently superseded the old circuitous channel, and its depth increases every year. In 1868 it was 10 feet. In 1872 it was deepened to 17 feet before the monsoon, but it was shoaled by the action of the sea to 15½ feet. It has since been dredged to 20 feet nearly throughout. It is not, however, of sufficient width as yet to give confidence in that depth being fully maintained during the ensuing monsoon; but a substantial increase in the depth of last year may be expected. Mr. Robertson was inclined to think that 1,500 feet was not a sufficient length for the breakwater; but on the whole subject his opinion is favourable. He thinks that when the works are complete the Government may be congratulated upon having an excellent harbour in Karáchi, 500 miles from the nearest good harbour on either side, and out of the track of cyclones. During 1871–72 the number of vessels that arrived at Karáchi was 1,021 (tonnage 129,508).

Other good harbours.

But besides Karáchi there are, at least, eight ports on the west coast of India which are capable of being converted into first-class harbours; namely. Poshetra. Seraia, Shalbet, Bombay, Jyghur, Viziadrúg, Karwar, and Cochin.

Ports in the Gulf of Kách.

The two first are in the Gulf of Kách. Captain Taylor, who surveyed the gulf, describes them as being sheltered from all winds, and capable of receiving the largest ship in the navy at any time of the tide. They are 300 miles to windward of Bombay, in the south-west monsoon, when the cotton crops require carriage to Europe, but no use has hitherto been made of them. The third harbour, called Chuch Bunder, is on the south coast of Katiwár, about 30 miles east of Diu Head. It is formed by Shalbet Island, within which there is a perfectly sheltered harbour, with good holding ground in five or six fathoms. These excellent harbours were passed over by Mr. Robertson, who, however, visited the

Ports in the Gulf of Cambay.

ports in the Gulf of Cambay, where the Malacca banks and the rushing tides render navigation very dangerous. He recommends that the mouths of the Narbada and Tapti should be surveyed, but thinks that nothing can be done to improve

improve the approaches, either at Súrat or Broach. On the opposite side of the gulf, Bhonágir has almost extinguished the trade of Gogo, from which it is distant about 15 miles. The former port is a broad creek in which small vessels can lie without grounding during all tides, and can cross the bar at half tides. Kurbunder, the port of Dholera, a name well known in connection with the cotton trade, is a creek into which the tide rushes with great rapidity, but dry at low water; and Mr. Robertson pronounces it to be the most wretched looking place he ever saw. There is no prospect of these ports being improved; and, indeed, the railways into Katiwár, and from Ahmadabad to Bombay, will very much reduce their importance as places of export for cotton.

Bombay harbour is the best on the west coast, but it still wants suitable accommodation to enable ships to load and unload alongside wharves. The problem of sufficient dock accommodation has, however, at length been solved by the erection of one of Mr. Clark's hydraulic lifts at Hog Island. The old docks at the Government yard, as well as the fine new docks at Mazagon for the Peninsular and Oriental steamers, have one fatal defect; they are on the foreshore of Bombay Island, which cannot be approached by large vessels except at spring tides. The requirements of the case were the means of frequently docking and undocking with rapidity, at any time of tide, and with everything on board, vessels of at least the dimensions of the Government transports, which are 381 feet long, with an extreme beam of 49 feet, a load draught of 21 feet, and 4,173 tonnage. This has now been provided by Clark's hydraulic lift dock, which has been set up at Hog Island, on the opposite side of Bombay harbour. It is now in full working order, and one of the largest frigates on the station has recently been docked. Bombay. Hydraulic lift.

The number of vessels in 1871–72 that arrived in Bombay harbour was 3,178 (aggregate tonnage 853,157), and 1,998 vessels sailed.

South of Bombay there are four good ports. Jyghur affords facilities for a commercial port, accessible during the south-west monsoon; and Viziadrug is an excellent harbour with similar advantages, and at a trifling expense it might be made a first-class harbour of refuge. Karwar is the port for North Canara, and for the cotton district of Dharwar. It is protected by a point of granite, under the shelter of which there is a safe anchorage during the south-west monsoon, and it is capable of considerable improvement. By throwing out a breakwater from Karwar Head for a mile and a half a perfectly quiet harbour might be formed, four square miles in area, with a depth varying from 14 to 32 feet. Mr. Abernethy, C. E., submitted plans for these works in 1860. Nothing, however, has been done beyond the construction of a landing place and wharves, of an iron screw pier, and of a lighthouse on the Oyster Rock. Jyghur. Viziadrug. Karwar.

Jyghur, Viziadrug, and Karwar were not visited by Mr. Robertson, but he examined the more southern ports in 1871. He proposed some works at Mangalore, with the object of fixing the harbour mouth; but thought that nothing could be done at Cannanor and Calicut, and little at Bepur. He was, however, much struck with the advantages of Cochin, and its splendid backwater. The backwater is of great value as a tidal reservoir to keep the entrance clear, and renders it independent of flood waters for scouring purposes; and every foot of water gained in depth over Cochin bar is permanently retained, and kept almost unvarying by this splendid tidal reservoir. Until 1862 the only communication between the backwater and the sea was at Cochin; but in that year the sea burst through at a place called Cruz Milagre, a mile and a half to the northward; and the opening is now 720 feet wide, with a strong current. Yet the body of water in the backwater is so great, that the escape at this gap has only a trivial effect on the scour at Cochin. In order to improve Cochin harbour, Mr. Robertson's advice is to strengthen the current and confine it, so that it may be concentrated on the bar. With this object, he would project long groynes on each side of the entrance, 3,000 and 2,300 feet long, which would have the effect of keeping a depth of 20 to 21 feet, at low-water springs, in the approach to Cochin. He would also stop up the Cruz Milagre gap. In the backwater, the entrance to which would thus be made accessible, there is room for 50 ships of 700 tons, and any amount of area can be got by dredging. The rise and fall is so small that the backwater is practically a wet dock of greater area than all the docks in Great Britain put together. On either side of Cochin harbour, to the north and south, there are the very remarkable mud banks of Mangalore. Cannanor, Calicut, Bepur. Cochin.

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Narakal and Alepy, which are most useful as natural harbours of refuge subsidiary to Cochin. No other harbour in the world has such adjuncts. Thus Cochin is admirably adapted to become the great western outlet for the trade of South India.

Kolachul.

Kolachul is a port on the Travancor coast, near Cape Comorin, which has never been properly surveyed by the authority of Government, but was practically discovered by the coffee planters in the adjacent hills. They found that large ships could sail between some outlying rocks, and ride at anchor to leeward of them in still water. The first ship called there in March 1871, and since that date two other ships have loaded at the port of Kolachul. The place was not visited by Mr. Robertson.

Tutikorin.

He, however, examined Tutikorin, in the Gulf of Manaar, the port for all the large trade of Tinnevelli. Here vessels are obliged to lie two and a half miles from the shore, and the cargoes are brought out in boats carrying 20 tons. The harbour is well sheltered, but it only has a depth of eight feet; and when the railway extension reaches to Tutikorin, it should be completed across the harbour to Hare Island, when the terminus will be brought much nearer to the ships in the roadstead. There is a stretch of water, seven miles long by four and a half, a short distance from Tutikorin, and on the south side of the Rámnád Promontory, where stands the famous temple of Rámeswar. It is completely sheltered by reefs and islands, and has an average depth of from 20 to 30 feet; but the entrance between Musel and Muli Islands only has a depth of 2½ fathoms, with a sandy bottom. If this entrance was dredged out, so as to admit large vessels, there would be a splendid harbour, infinitely superior to Tutikorin, for shipping the produce of South India. At present it is only occasionally used by coasting craft, and the shores are uninhabited. This harbour has been named Port Lorne.

Mutapeta.

Ship canal.

The question of cutting a canal for large ships between India and Ceylon has recently been investigated with much care. The Rámnád Peninsula is separated from the Rámeswar Island by the Pamban Passage. Rámeswar Island is divided from that of Manar by the shoals and rocks known as Adam's Bridge; and the whole line is so shallow, or so occupied by land, that a railroad could be made, without much difficulty, from India to Ceylon. But the problem was to construct a canal from the Gulf of Manar to Palk Strait, so as to save the distance round Ceylon. In 1822 Ensign (now Sir Arthur) Cotton proposed alternative schemes, and that for improving and deepening the Pamban Channel was selected. From that time the work has steadily progressed in the hands of the Madras sappers, with a gang of convicts. The passage now consists of two tortuous channels, the northern one, 4,232 feet long, through a sandstone reef, dry at low water, with a depth from 11 to 14 feet, and a navigable width of 80 feet; and the southern one 2,100 feet long, and 150 wide, through a sandbank which has been dredged out to a depth of 12 feet. It would be useless to make the channel deeper, because there is no greater depth in the approaches on either side. But the Pamban Channel has long been of use to the native craft, and to this extent it must be considered a great success, for 12 feet is quite sufficient for the local trade. The average number of vessels annually passing through the channel during the last 10 years, is 2,100, with a tonnage amounting to 173,894. In 1871-72, the number of vessels that passed through the channel was 2,723 aggregating 239,376 tons, a good deal above the average. One of these was the "Harefield," a steamer of 1,000 tons, 218 feet long, and drawing 11 feet. Before entering the channel her draught was reduced to 9 feet 4 inches. She was bound from England to Akyab.

Pamban Channel.

Rámeswar Canal.

If a canal for large ships is to be constructed, the line must be sought for elsewhere; either across the promontory of Ramnad, as urged by Sir James Elphinstone and Captain Taylor; or across the Island of Rámeswar, as proposed by Sir William Denison and Mr. Robertson. The site selected by Mr. Robertson is across Rámeswar Island. The southern entrance of the canal would be from a well-protected piece of anchorage nearly a mile long, with a depth from 29 to 26 feet. The surf breaks on the reef between Curesadi and Shingle Islands, leaving still water between them and the shore. The line of the canal, from this point, crosses the island, where it is one mile and one furlong in width, about a mile east of Pamban Lighthouse. It traverses a sandy plain, only 6 to 7 feet above

above high-water mark; but as the 30 foot line, on the north side, is at a distance of a mile and a quarter from the shore, a large amount of dredging will be necessary there. Mr. Robertson estimates the cost of this ship canal at 440,000 *l.*; and he mentions that it will be the only point, from Calcutta to Karáchi, where a large vessel will be able to land and discharge her cargo direct on to a quay, without the intervention of a cargo boat.

Rámnád Canal.

He preferred the Rameswar project to that of the Rámnád Promontory, because the cutting would be longer across the Ramnad Promontory; the level above the sea is higher, and there is probably much rock. The distance from the shore to deep water on the north side is also greater. On the other hand, it is more conveniently situated as regards railway communication, and represents a more complete and grander scheme; but he is in favour of the Ramiseram plan, in preference to that of Rámnád, because it is more economical, and on the whole the cheapest satisfactory short cut to the eastern side of India. But Captain Taylor maintains that no practicable entrance to a ship canal can be found except by Port Lorne or Mutapeta; and that, therefore, the canal must take the line across Toritory Point, the east end of Rámnád. When a ship canal is made, the short cut will save a steamer 350 miles in the voyage from the Red Sea to Madras, and will bring Madras nearer to Bombay by about 370 miles.

Results of a ship canal.

Negapatam.
Korangi.

Mr. Robertson took an unfavourable view of the practicability of improving the harbour of Nágapatam, and reported that the gradual silting of Korangi (Coringa) Bay by mud brought down by the River Godávari could not be arrested. The improvement of the port of Madras, and of Blackwood's Harbour, also engaged his attention.

Madras.
Proposal for a breakwater.

A Committee appointed in 1868 recommended a breakwater as the only practicable improvement for Madras Roads. Mr. Robertson concurs in preferring it to a closed harbour, but he says that it should be in at least seven fathoms, perfectly straight, and 2,000 yards long, and also that a screw-pile pier must be run out to the site of the works while under construction, with two lines of rails. His estimate of the cost is 1,311,000 *l.*, and he thinks the breakwater could be completed in six years. In place of a breakwater, however, a close harbour has since been proposed by Mr. Parkes. Two piers, constructed on the same principle as the Manora Breakwater, would be run out, 1,000 yards apart, for a distance of 1,200 yards, where they would approach each other, leaving an entrance, and enclosing an area of nearly 250 acres. The cost is estimated at 650,000 *l.* Mr. Parkes is to visit Madras, and report on the subject.

Mr. Parkes's plan for a close harbour.

Blackwood's Harbour.

About 55 miles north of Madras is Blackwood's Harbour, a sheet of water between the coast and Armegan shoal, which protects it from the heavy ground-swell. A breakwater on the shoal, three miles long, might easily be constructed, and would completely shelter a fine stretch of water.

Shipping of Madras.

It is not, however, for the unfrequented coast at Blackwood's Harbour, but for the great commercial town of Madras that improvements on such a scale are required. The number of steamers registered at the ports of the Madras Presidency is 641 (tonnage, 565,374), and of sailing vessels 7,461 (tonnage, 603,191), of which 253 sailing vessels and 216 steamers belong to the port of Madras; 383 vessels arrived at Madras during 1871–72 (tonnage, 334,127), besides 86 native craft. Throughout the ports of the Presidency the arrivals were 4,545 (1,018,022 tons), and 3,557 native craft.

False Point.

The harbour for the province of Orissa, called False Point, at the mouth of the Mahánadi, is analogous, as regards position, to Korangi (Coringa) Bayat the mouth of the Godávari; but fortunately the action of the Mahanadi does good, while that of the Godávari is most mischievous. Point Reddie, which protects the anchorage at False Point, has increased more than two miles in length since the survey of 1835, and this increases the deep-water area and the shelter for boats. Mr. Robertson pronounces False Point to be the most sheltered anchorage on the east coast of India, and to be of incalculable value for the development of Orissa.

The Hugli.

The Hugli involves a question of expenditure so enormous that there is little chance of its improvement being undertaken on an adequate scale. The river is so large, the floods in it so great, the nature of the bottom so soft, the quantity of silt brought down so immense, that any attempt at improving even a single shoal should only be undertaken when it becomes a matter of absolute necessity. The river is not one for experiments. Mr. Robertson was consulted respecting the

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removal of the Moyapur shoal. At present, spars have been thrown out from the river banks. He pronounces this measure to be a mistake, and dredging is out of the question as too expensive. The widening out of the river permits each of the scouring agents, flood and ebb, to take distinct courses, leaving a strip of river never fully acted upon. The way to improve Moyapur shoal is to confine the two scouring powers in one channel, so that there should be a coincidence in the curves of direction of the flood and ebb. Mr. Robertson would effect this by a longitudinal training wall nearly parallel to the left bank, and 1,100 yards from it, about 1,500 yards long, to train the young flood and the last of the ebb into the same channel, but the cost would be enormous. The traffic on the Hugli is very considerable, and is increasing. In 1871-72, 658 sailing vessels and 301 steamers (total tonnage, 999,614), arrived in the river, and 637 sailing vessels and 293 steamers (total tonnage, 957,523) sailed. There were 68 Government and 46 licensed pilots in active service, and during the year there were 77 cases of vessels grounding and 6 collisions. The gradual substitution of steam vessels for the brigs and steamboats now doing the work of the port is in contemplation. Six sailing vessels and two steamers are registered as belonging to the port of Calcutta (tonnage, 6,050). In 1871-72 the number of vessels that arrived was 933 (aggregate tonnage, 961,717), and 930 sailed.

Chittagong. Chittagong was the easternmost port visited by Mr. Robertson. The port is 10 miles up the River Kurnofali, which enjoys the peculiarity of having no bar. The efforts of the waves to throw one up are counteracted by the strong flood and ebb coast currents sweeping up and down the estuary of the Meghna. Instead of a bar, the river at once falls into deep water, and the mouth is kept clear by the scour of the coast currents; but there is a shoal or flat at the entrance, and extending nearly three miles up, which is probably caused by deposits of silt in suspension in the river water. It is kept to a depth of 10 or 11 feet by the action of the scour in and out, and the depth might be increased by raking. Mr. Robertson considers Chittagong to be one of the best ports in India.

Cyclone at Madras. The Madras Administration Report is the only one which furnishes complete information respecting disasters at sea. A cyclone visited Madras on the 2nd of May 1872 with the most disastrous consequences, owing to the ships in the roads not having been warned in time to slip their cables and run out to sea. Nine English and 20 native vessels were driven on shore, and 19 lives were lost.

Wrecks. Eleven wrecks are recorded during 1871, with a total of 29 lives lost.

Bengal Marine. The Bengal Government employed four sea-going steamers during 1871-72; the "Undaunted" at the Andaman Islands; the "Celerity," unsafe in any sea, and fit only for calm weather; the "Agitator," only intended to dredge, and not fit for that; and the "Nemesis," employed in British Burma. There are also 12 Government river steamers, 11 pilot vessels, 16 boats, and 2 hulks, besides 4 light vessels.

Bombay Marine. The Bombay Marine consists of the "Comet" on the Tigris; the "Amber-Witch" employed in connection with the Indo-European Telegraph Department; the gunboat "Clyde," dismantled; the gunboat "Hugh Rose," under the orders of the Political Resident in the Persian Gulf; the steamer "Satellite," under the orders of the Commissioner in Sind; the steamer transport "Dalhousie;" the steamer "Sind," under the orders of the Political Resident at Aden; the steamer "Quantung," in the Persian Gulf; and the Governor's yacht, "May Frere." The two turret ships, "Magdala" and "Abyssinia," for the defence of Bombay Harbour, are in every respect efficient for service.

Lighthouses. The lighting of the coasts of India is not perfect, is not even in so complete and satisfactory a state as the lighting of the coast of Spain, or that of Greece; but a good deal has been done, and on the coast of British Burmah the system of lighting is admirable. At Bombay the long spit, called the Prongs, running out from Kolába, has bristled with wrecks, owing to the lighthouse being built, not at the extreme end of the danger, but far within it, on Kolába Island. Now the new light is being erected on the Prongs. The lantern had been received in January 1872, and the tower, at the close of 1871-72, was 114 feet above the foundation. This is the only lighthouse mentioned in the Bombay Administration Report for this year. It may be added, that there is one on Manora Point, 40 feet high, lighted in 1848, for Karáchi. One maintained by the Rao of Kach at Mandavi, and six in the Gulf of Cambay. Besides the Prongs Lighthouse, the entrance to Bombay Harbour

Harbour is shown by two light vessels, a light on Dolphin Rock, and, on the south side, the lighthouse on Kundari Island. This is an octagonal tower 75 feet high, with a dioptric light of the first order, 161 feet above the sea. It was first lighted in 1867. A lighthouse was finished at Ratnagiri in 1867, and at Karwar, on the Oyster Rock, in 1864. The latter is a circular tower, 45 feet high, with the light 205 feet above the sea. Lights are also much needed at Dwarka Point, on Diu Head, at Shalbet Island, and at Viziadrug. Along the shores of the Madras Presidency there are 19 lighthouses, besides the fine tower, 90 feet high, with dioptric light of the second order, built by Mr. Crawford, at Alepy. Another is much wanted at the Crocodile Rock, 17 miles to the west of Cape Comorin, which has been ordered, besides that now building on Cape Comorin itself. A new lighthouse to cost 1,000 *l.* has been sanctioned for Tutikorin, and will be finished this year. There is a light in good order at Pamban, and there ought to be another on Point Calimere. On Hope Island, at the mouth of the Godávari, a new tower is to be built five miles north-east of the old one, in consequence of the silting of Korangi (Coringa) Bay. On the Bengal coast there is a light at False Point, and a tower 82 feet high on Ságar Island, at the mouth of the Hugli, made of iron, with a copper roof. The lighthouses on the Burmese coast are mainly due to the skill and energy of Colonel Fraser. The Alguada reef lighthouse, at the mouth of the Bassein River, 160 feet high with a dioptric light of the first order, was commenced in 1859, and completed in 1865. The others, to guide ships to Rangún, are the Cocos, Double Island, Krishna Shoal, China Buckir, and Eastern Grove lights.

Marine surveys.

The great ocean and coasting trade of India renders the provision of accurate charts on adequate scales of the coasts and anchorages, a very important part of the duty of the Government, But, since the abolition of the Indian Navy, nothing has been done, except a survey of the mouths of rivers in Orissa and at Chittagong, and no proper arrangement has been made for the execution of much-needed marine surveys. New surveys are urgently required of the coasts between Calicut and Bepur, from Santopillay to Point Palmyra, from Nizampatam to Cocanada, and of various shoals on the Coromandel coast. A survey is also much-needed of the new port of Colachul, and another of Palk Strait and the Gulf of Manar; and there should be a periodical examination of the river mouths of Mangalor and Cochin, and of the mud banks off Narakal and Alepy. Mr. Robertson has pointed out the need for surveys of the mouths of the Narbada and Tapti, and several others are much wanted. The adoption of effective measures for securing the due execution and continued revision of marine surveys and charts on a systematic imperial plan, is a question which yearly becomes more urgent. In a despatch, dated March 30th 1871, the subject of marine surveys was brought to the notice of the Government of India by the Secretary of State as one of very great importance, and as deserving of early and serious attention. But the despatch has not yet been answered, and the subject is believed still to be under the consideration of the Government of India.

Electric telegraph.

The electric telegraph is now in working order along every line of railway, and connects every important place in India. By the last returns, the number of service messages during the year (1870-71) was 37,606, and of private messages 539,755, and there had been a great improvement in the receipts of the department. Much attention has been given by Colonel Robinson to the education of the staff. In 1867 two experienced electricians were engaged to go out to India as travelling instructors. They went from office to office, teaching the modern system of testing, correcting errors in practice, and lecturing on electricity and galvanism. The education of the subordinate staff of the Electric Telegraph Department has thus been raised quite to the standard prevailing in Europe. Officers have also been allowed to go through a course of physics in Europe, and to acquire a knowledge of recent improvements in telegraphy, and six, who have availed themselves of the permission, have reaped material benefit from their studies. A system has been adopted of instructing soldiers, and employing them in the telegraph offices. There are classes for the instruction of soldiers at 40 stations; and those at Kampti, Mattra, and other places, are now worked by soldiers. The railway companies are at present allowed to carry on a sort of independent competition with telegraph wires of their own; and it seems very desirable that they should be compelled to aid in developing

Number of messages.

Education of the Telegraph Department.

Studies of officers.

Employment of soldiers at telegraph stations.

Railway telegraphs.

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Financial position of the Telegraph Department.

the correspondence of the country, as part of one homogeneous system. It is also represented that, to remove the deficit, the tariff should be revised. The cost of the signalling establishment has been considerably reduced, but in 1870-71 it still exceeded the receipts, and the rates might well be higher without reducing the number of messages materially.

Lines from India to England.

India has now three lines of telegraph whereby to communicate with England, and for a short time even had a fourth, by China and the Great Northern Company's line, which, however, is now interrupted. There are

Turkish line.

alternative lines of telegraph from England to India, through Turkey and Persia. The first leaves the European system at Constantinople, and, traversing Asia Minor, passes through Mosul to Baghdad. This section was constructed by the Turkish Government in the year 1863. In 1864 a line, on iron standards, was erected by the Indian Government, from Baghdad to Fâo, at the head of the Persian Gulf, which was subsequently transferred to the officials of the Porte. From Fâo a single submarine cable was laid to Karáchi, in the spring of 1864, repeating stations being established at Bushire, Ras Mussendom, on the north-east extremity of Arabia, and Gwadur, in Baluchistan. A land line had previously been erected along the coast from Gwadur to Karáchi by the Government of India, to ensure communication in case of interruption to that section of the cable which might be endangered by the gales that rage on that part of the coast during the south-west monsoon.

Alternative Persian line.

The wire from Baghdad to Fâo, passing through a country where the Turks have little or no authority, was considered to be the most unsafe portion of the line; and in 1863 a line was constructed by British officers to supplement it, at the expense of the Persian Government, from the cable station at Bushire to Tehran, and thence to Baghdad.

Services of Colonel Stewart.

This complete system of telegraphic communication between Europe and India was planned and carried out by the late Lieutenant Colonel Patrick Stewart, of the Bengal Engineers, on the failure, a few days after completion, of the cable laid from Suez to Bombay in 1859, capital for which had been raised by a company on a 25 years' guarantee from the Government of India. Colonel Stewart did not, however, live to see the successful result of his labours. He died at Constantinople in January 1865, from the effects of exposure and over-exertion, a very short time before the lines were formally opened.

Abuses on the Turkish line.

The main line above described remained the principal means of telegraphic communication with India until the spring of 1870. During the interval, the Turkish Government, having refused to allow British officers any share in the management of their lines, permitted them to fall into disrepair. The greatest abuses were allowed in their office management, and, although the cable from Fâo to India continued to work well, delays and errors were the rule on the Turkish sec-

Alternative Russo-Persian line.

tion. This evil was partially mitigated by an extension of the Russian Government lines from Tiflis to the Persian frontier, and thence by the Persian Government to Tehran. The new line, however, did not work much better than the Turkish; though the section from Tehran to Bushire was kept in good order by the exertions of the officers and men of the Royal Engineers, who were in charge of it.

Cable from Suez to Bombay.

In the spring of 1870 a new era dawned on the history of Eastern telegraphy. Almost simultaneously with the successful laying of the Red Sea cable, the Indo-European Telegraph Company's line was opened to Tehran. The submarine cable between Suez and Bombay was opened on the 6th of March 1870. The line of the Indo-European Telegraph Company is carried from Tehran to London by way of Tabriz, Tiflis, Kertch, Warsaw, Berlin, and Nordeney,

Indo-European Telegraph Company.

and is constructed in the most solid manner. The Anglo-Persian line, from Tehran to Bushire, had previously been much improved, and a second wire erected. An alternative cable had also been laid from Bushire to Cape Jash, whence it was continued by land wire to Gwadur. The Turkish Government was stimulated by this competition to improve their telegraphs, but they have not hitherto succeeded in attracting more than 10 per cent. of the traffic, although they carry messages at lower rates.

Three lines from England to India.

By these three routes the English and Indian public enjoy facilities for the transmission of intelligence, which leaves nothing to be desired on the score of rapidity and correctness. On financial grounds, however, none of the lines can be considered successful.

Up

THE
FORESTS
OF
INDIA
1872.
Scale of Statute Miles.
100 0 100 200 300
REFERENCES.
State Reserved Timber forests ... colored Green.
Unreserved Timber forests ... Red.
Fuel Reserves ... Yellow.
Timber Plantations ... Brown.
Fuel Plantations (Myeri) ... Blue.
Leased forests in Native States ... Purple.
Forests in Kashmir ... Pt Sienna.
Woodland Grants in Oudh ...
Teak forests in Bombay & Madras (D'Cluyher) ... Em. Green.
Note. In the Punjab, Reserved and Unreserved forests being much intermingled are colored Green.
Plantations in the same Provinces are for Fuel as well as Timber, but both are colored Brown, as they are designed on the Coppice system with standard growth.
The Forests chiefly copied from Lt Col. Pearse's Forest Map 1872.
Baltic
Gobi or Great Desert
Plateau of Tibet
BOKHARA
KOKAN
KASHGAR
YARKAND
KHOTAN
BALKH
KABUL
PESHAWUR
KAFIRISTAN
DEODAR FORESTS
HIMALAYAN MOUNTAINS
NEPAL
BHUTAN
SIKKIM
ASSAM
KHASIA HILLS
GARO HILLS
NAGA HILLS
MANIPUR
KUNLAN
LASSA
SINING
BATANG
TALIFU
YUNNAN
KUEN KIANG
BAMO
MANGLEY
KUNG HUNG
KAILAS
The Thar or Indian Desert
RAJPUTANA
Delhi
AGRA
Sambhar L.
LUCKNOW
OUDH
ROHILCUND
Ganges R.
Kosi R.
Gogra R.
Kurh Behar
ALLAHABAD
LOWER PROVINCES
CALCUTTA
Mouths of the Ganges
Hazaribagh
Chota Nagpur
Jhansi
Indus R.
Sutlej R.
Jhelum R.
Chenab R.
Ravi R.
Beas R.
Jumna R.
Chumbul R.
Betwa R.
Son R.
Damuda R.
Mahanadi R.
Godavari R.
Kistna R.
Cauvery R.
Periyar R.
Vaigai R.
Tambraparni R.
Bhima R.
Tapti R.
Nerbudda R.
Mahi R.
Luni R.
Banas R.
Sabarmati R.
BABUL FORESTS
KARACHI
Mouths of the Indus
NORTHERN INDIA STATE RAILWAY
INDUS VALLEY STATE RAILWAY
SIND
PUNJAB
NORTHERN INDIA CANAL & DRAINAGE CO.
SOHAGPUR FORESTS
CENTRAL PROVINCES
CENTRAL INDIA AGENCY
SURAT
Khandesh
BERAR PROVINCES
GULF OF CAMBAY
BOMBAY
THE DECCAN
HAIDARABAD
HAIDARABAD
BOMBAY PRESIDENCY
MADRAS PRESIDENCY
MYSORE
BANGALORE
Pulicat L.
MADRAS
Mouths of the Godavari
Mouths of the Krishna
Mouths of the Mahanadi
BAY OF BENGAL
ARABIAN SEA
Laccadive Islands
Maldive Islands
C. Comorin
CEYLON
Pt DE GALLE
Andaman Islands
Nicobar Islands
C. Negrais
Mouths of the Irawadi
RANGOON
PEGU
MARTABAN
GULF OF SIAM
BANKOK
TENASSERIM
NORTHERN LIMIT OF TEAK
TEAK FOREST
Trel. Saunders Geog.r

Up to the date of the completion of the Red Sea cable in 1870, the Government lines in the Persian Gulf earned not only enough to clear their own working expenses, and to leave a small surplus, but also to support the heavy charges for maintenance of the lines through Persia, to which the Government of that country contributes little or nothing. Since 1870, the lines from Suez to Bombay, which, from circumstances unnecessary to detail, enjoy exceptional advantages, pay only 8 per cent. on a capital of 1,200,000 *l.*, a per-centage which does not exceed the yearly depreciation in the value of the cables. The Indo-European Company, with a capital of 450,000 *l.*, has not hitherto earned enough to pay its working expenses, after deducting the heavy tax payable on each message to the foreign Governments through whose dominions its wires are carried. It must, however, be added, that it is not worked up to a tenth of its powers of transmission.

Financial aspect of the working of the lines.

The Indian Government, since 1862, has expended upwards of 1,150,000 *l.* on telegraphic communication with Europe, in addition to 18,000 *l.* a year, being half the guarantee on the original Red Sea cable; but since 1868 it has obtained no immediate return for this large outlay. The tariffs have been revised twice. The charge for a single message of 20 words, originally fixed at 5 *l.*, was at one time lowered to 2 *l.* 18 *s.*, and again raised to 4 *l.* 10 *s.*, without any successful result from a financial point of view.

Expenditure on telegraphy by the Government of India.

The cable from Madras to Penang and Singapur was opened on the 4th of January 1871, and that from Singapur to Hong Kong on the 10th of June 1871. The licenses of these companies require that the ends of the cables be brought into a Government office; that the signallers shall work in a room adjacent to the Government signal-room; and that the companies shall work under the International Telegraph rules.

Cable from Madras to Singapur.

Agreement with the companies.

VII.—FORESTS.

The Forest Departments in most provinces of India have not been in existence for more than 15 years, and much will have to be done, many difficulties and obstructions must be removed, before they will be in thoroughly effective working order. The importance of their work is, however, beginning to be understood, and when the forest revenues largely increase, the value of conservancy will be recognised even by the numerous class which looks upon any thought for future generations as a waste of time and money.

Forest conservancy.

Forest conservancy effects many objects, among which the natural influence of trees on the drainage of a country is probably of most importance. Though every grove and clump in the dry tracts is a blessing, the value of which cannot be too highly estimated, yet Dr. Brandis, and other officers of great experience, are doubtful whether there is sufficient evidence to show that a material deterioration of climate has been the result of denudation in any part of India, or that the preservation and extension of forests will increase the rainfall. But there is one obvious consequence of the destruction of forests which does not admit of doubt. Where the mountains are bare, the rain rushes down in torrents, giving rise to sudden and destructive floods at the outlets on the plains, and to most injurious freshes in the irrigating rivers; and the supply is uncertain and capricious during the dry season. The same rapid surface drainage destroys roads and bridges, and does other injury, both in the hill tract and the plains. On the other hand, where the forests are preserved, the superficial drainage is gradual, the springs are better supplied, and the dry weather discharge is gradual; so that the water is husbanded, either to supply tanks and lakes, or to ensure regularity and safety to great irrigation works in the plains. These are the indirect, though most important, objects of forest conservancy.

Its effects on drainage.

The direct objects are, first, to meet a rapidly increasing demand throughout India for enormous supplies of timber and fuel. The cultivators, as their condition improves, require to exchange miserable huts for better built houses and better furniture. There is an immense demand for railway sleepers, for fuel for steamers and railways, and for timber and fuel for large towns. The interests of trade, which have a direct bearing on the prosperity of the people, also require consideration, in order to meet the demand for teak, sandalwood, catechu, lac, caoutchouc,

Other objects of forest conservancy.

VII. Forests.

caoutchouc, and other forest products. The rapid increase in the magnitude of these demands is strikingly shown by the effect it has had on the export timber trade in some parts of India. The export of timber in North Canara was formerly all to seaward; but now there is a great demand in the inland provinces, and a brisk trade in timber and bamboos with the Southern Mahratha country. In the *dangs*, or forest tracts along the foot of the Khandesh ghauts, a similar change in the direction of the traffic has taken place. Unless the small extent of remaining available forest is very carefully managed, there will be great difficulty in meeting the demands for timber, bamboo, and fuel, which are increasing everywhere, and extensive plantations, as well as careful management of existing trees, are necessary.

Commencement of conservancy.

The urgency of adopting measures for forest conservancy in India has been very gradually perceived. In 1846 a department was organised in the Bombay Presidency, under Dr. Gibson, mainly with a view to ensuring supplies of timber for the dockyard; but it was not until 1856 that Dr. Cleghorn commenced work in Madras, and Dr. Brandis arrived in British Burma in the same year. Dr. Cleghorn not only created the department in Madras, but also laid the foundation of forest administration in the Punjab, and was subsequently associated with Dr. Brandis in organising the Forest Department in the Bengal Presidency. His great scientific acquirements were combined with judgment and tact, through which he succeeded in extending the operations of the Department in the Madras Presidency over 20 forest ranges before his final retirement in 1867. In 1864 Dr. Brandis was appointed Inspector General of Forests to the Government of India.

Necessity for reserved forests.

It has been found necessary to retain as many important forest tracts as possible in the hands of the State for exclusive management, as it is impossible to control the forests efficiently when in private hands, and the Government forests offer the only means of training an experienced body of foresters with practical knowledge. In some provinces the establishment of the absolute right of the State in forests has been easy, owing to local causes, and this has especially been the case in Sind and the Central Provinces. In others, much tact and conciliatory treatment of the people has been required to secure a gradual adjustment of rights, and to save at least a portion of the forest tracts from destruction. Many are still burdened with heavy rights of pasturage and other prescriptive demands. The reserved forests are under the exclusive management of the department.

Unreserved forests.

But the largest portion of the forest area is still unreserved, and the people retain rights of pasturage, of destructive burning, of desultory cultivation, which is equally destructive, and of collecting products. These unreserved forests are generally under local district officers; and, when well managed, they yield a good revenue available for roads and other public improvements.

Three classes of forests.

Thus the forests under the control of Government are divided into three main divisions, reserved forests, unreserved forests, and plantations. The forests reported to have been reserved and secured to the State cover 6,200,000 acres, as compared with 6,000,000 acres in Prussia, 2,500,000 in France, and 112,000, comprising the Crown forests in England. Much time must elapse before the Forest Department in India can reach a really prosperous condition as regards financial results.

Financial results of conservancy.

The great mass of the forests, owing to past neglect, is in a poor and exhausted state; and large sums must, for a long time, be annually spent on surveys, demarcation, boundaries, roads, and plantations. The income of the last three years has fluctuated between 420,000 *l.* and 465,000 *l.*, and the highest annual net profit has been 160,000 *l.* In 1871–72 the total revenue of Indian forests was 501,924 *l.*; and the expenditure 354,616 *l.* In the part of Bombay, however, where the administration of forest lands was commenced in 1846, there is a large and steady revenue, fluctuating, in the last six years, between 82,000 *l.* and 123,000 *l.*, half of which is net profit. The objects of forest conservancy are not those of an opium monopoly or a salt tax. They are to protect the land from destructive floods, to ensure supplies of timber and fuel for the use of posterity as well as of the present generation, and to increase the well-being of the people. The surplus is a satisfactory incident in the management of forests, and it is a sign of that management being good and efficient, but an immediate revenue is not the object in forest conservancy.

The

VII. FORESTS.

Distribution of forests.

The existence of forests, and their character, mainly depends on climatic conditions of temperature and rainfall. In the arid tract of Sind and the Punjab, forests of babúl (*Acacia Arabica*) line the Indus at various points, which in Middle and Upper Sind are mixed with tamarisk and the Euphrates poplar, while *jhund* or *kundi* (*Prosopis spicigera*), an acacia-like tree, *Salvadora*, and an arborescent leafless caper (*Capparis aphylla*), occupy vast tracts in rear of the babúl forests. The dry belt of the Punjab has woods, on the high land between the rivers, called *rakhs*, also composed mainly of *Prosopis*, *Capparis*, and *Salvadora*. The woodlands of a portion of Rájputána are mainly composed of a beautiful tree, with small leaves and drooping branches, a species of *Anogeissus*; and the southern dry belt, in Mysor, is the region of sandalwood. Outside the dry zones, the teak extends over the peninsula to the northern slopes of the Vindhya Hills, while the sal (*Shorea robusta*), the most important timber tree of India next to teak, forms extensive forests along the foot of the Himalayas in the eastern part of the Central Provinces, the Rewah territory, and the adjoining districts of Bengal. Luxuriant evergreen vegetation is only met with in the two moist belts, the first extending along the Himalayan range to Burma and Tenaserim, the second along the western coast, and thence to the summit of the ghats. From the Himalaya come the supplies of pine and other coniferous trees. The deodar has its eastern limit in Kamaun, but it is succeeded by other coniferous trees, one of which, the *Pinus Khasiana*, extends into Burma. The *Ficus elastica*, yielding caoutchouc, is found along the foot of the Himalaya from Sikkim to Asam, and more sparingly at the foot of the Khasia and Cachar hills. In Burma there are extensive forests of *Pinus Khasiana* on the high mountains; famous teak forests between the Salwen and Sitang, and the Calcutta magnificent evergreen forest vegetation in the moister valleys, where trees grow to a height of 200 feet. The western ghats are the region of teak and blackwood trees, of poon spars, and of other trees, such as angelly (an *Artocarpus*), vengay, and irul, yielding excellent timber.

Obstacles to forest conservancy.

Forest conservancy has had to struggle against numerous difficulties arising from the immemorial practices of the natives, as well as from natural causes. The two worst of these obstacles to progress are jungle fires, and the clearing and burning the jungle for cultivation. In the spring the leaves and grass of the deciduous forests dry up, and everything becomes inflammable. The smallest spark is sufficient to create a conflagration, and fires are intentionally made every year either for cultivation or to cause fresh tender shoots of grass to spring up as fodder for cattle.

Fires.

Jungle cultivation.

The thriftless system of jungle cultivation is most destructive. It is called *kumari* in Mysor and Canara, *jhúm* in Bengal, *kil* in the Himalaya, *dhya* in Central India, and *toungya* in Burma. A patch of forest is cut down and burnt, and a crop is raised in the open space, no ploughing or digging being necessary. In the following year the field is abandoned, and another patch of forest undergoes the same wasteful and lazy process. The damage done by these fires is incalculable. Millions of seeds and seedlings are destroyed, the bark of the trees is scorched, the wood is exposed to the air, and the trees become hollow and useless for timber. Thus a large proportion of trees in Indian forests are unsound, mainly owing to these fires. Steps have been taken to prevent them by isolating the tracts to be protected, and in the Central Provinces the active exertions of Colonel Pearson have achieved the exclusion of fire from the valuable Bori Forest, in the Satpúra range, for the last eight years. But much damage is still done by forest fires in most parts of India, though Dr. Cleghorn obtained the prohibition of *kumari* cultivation in Mysor and part of the Madras Presidency.

Destructive creepers.

Another difficulty of the Indian forester is to clear the valuable timber trees of huge creepers, which stretch over them, and completely smother the crowns of the trees with their foliage. The creepers eventually enclose the trees with a network of branches, destroy their growth, and finally kill them.

Forest legislation.

The only legislation for the management and preservation of Government forests is comprised in Act VII. of 1865, passed by the Governor General in Council. By this Act forest tracts may be rendered subject to the provisions of the Act by Government notification, provided that no existing rights are affected; and the local governments are empowered to make rules, applicable to such tracts, for

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the preservation of trees by prohibiting girdling, lopping, or felling, the kindling of fires, the collection of products, and the grazing of cattle. Rules may also be made for the regulation of the use of streams within the forests, for the safe custody of timber, and for levy of dues and infliction of penalties. Forest rules, under the provisions of Act VII., have been drawn up for Mysor, Curg, the Central Provinces, Berár, Oudh, and Burma. There are also local rules for Assam and the Chittagong forests, and for the Hazáribagh district, but these forests are administered by the civil officers, who have forest officers placed under them for carrying on the executive work. Forest affairs are not yet sufficiently advanced in Bengal for any codified form of rules. In the Punjab there are rules for the Hazára, Ráwal Pindi, Kangra, and Chamba forests, and for the regulation of waif and drift timber on the rivers. In the North West Provinces there are rules for the Kamáun and Garhwal forests. The Act does not apply to Madras or Bombay, and the Madras Government has always declined to legislate on the subject, but Bombay has prepared a draft Forest Act of its own, which is under consideration. A more complete draft of an Act was drawn up in 1871 for the management and preservation of forests in India, but there is no prospect of its receiving sanction at present.

Principles of forest conservancy.

Meanwhile the main principles of forest conservancy are the definition and demarcation of reserved forests, the prevention of jungle fires, the exclusion of cattle, the opening of roads, and the cutting and clearing away of creepers and grass round the young trees.

Bengal.

Sikkim.

In Bengal the principal forest tracts are in Kuch Bahar, Bhutan, Asam, Cachar, Silhet, and Chota Nágpur. In Sikkim, on the Himalayan range, at 6,000 to 8,000 feet, the chesnut, oak, walnut, cherry, and magnolia abound; while along the Tista Valley, and in the Terai, at 3,000 feet, there are forests of *sal* and *sissu*, and in Bhutan the *sissu* occupies half the area of the forests.

Asam.

Reserves.

In Asam it is intended that the Forest Department shall eventually have the management of the reserved forests only, the open forests being under civil officers. Orders were issued to demarcate the Kamrúp Duars, the Nambur, and Dhunsiri, and Naugong forests, which are to be made into forest reserves; but the demarcation has not been effected. In Kuch Behar the forests had been marked off on the revenue maps, and placed under the Department; but in June 1872 they were declared to be open, except as regards certain kinds of trees. The forests of the Sikkim Terai, which were declared to be reserved in 1866, are also to be thrown open.

India-rubber in Asam

One of the most important products of the Asam forests is caoutchouc, obtained from the *Ficus elastica*, and there have been three proposals with respect to the conservancy and working of the trees. One is that Government shall annually sell the right to collect india-rubber; the second, that the india-rubber should all be purchased by Government; and the third, that Government officers should manage the forests. But much of the rubber is brought in from forests, by wild and half-subjugated tribes, and still more by tribes that are under no subjection at all; so that conservancy is impossible, and a Government monopoly very difficult. Only two courses seems possible, either to allow speculators to make their own bargains with the hill men as they liked, or to enforce an effectual Government control. Sir George Campbell considers the latter course to be the right one. Very little progress has been made in Bengal in the important work of demarcation, although several reserves have been selected.

North West Provinces.

Excepting in Jhansi, the forests of the North West Provinces are within or at the foot of the Himalaya. In Kamaun and Garhwal the characteristic trees at 3,000 to 8,000 feet are the chil (*Pinus excelsa*), the chir (*Pinus longifolia*), but very little deodar. Below lie the great sal and bamboo forests, which have been much worked, millions of bamboos being annually exported down the Ganges. But there is still a fair amount of native timber near the Kosi and Ramganga rivers.

Demarcation of Kamaun forests.

The demarcation of these great sal forests was completed, some years ago, by Colonel Ramsay, then Commissioner of Kamaun. This demarcation went hand in hand with the clearing and settlement of the Bhabar, a tract the nature of which has been explained in the section on irrigation. The scattered population was easily induced to leave the forests and settle in the irrigated region below. A broad road was then constructed from the Ganges to the Sarda, for 160 miles, as a boundary to the forest, above which all cultivation was interdicted. The result

result of these measures has been that the forests are rapidly recruiting themselves, while the Bhabur tracts shows many thousands of acres of rich cultivation.

North of the Dehra Valley, near the sources of the Tonse and the Bhagirathi, lie the deodar forests of Gangotri and Jaunsar. The Tonse deodar forests are now demarcated, the people being compensated by grants of certain portions for their sole use. The Bhagirathi deodar forests have been leased from the Tiri Rajah. In Gorakhpur *sal* is the characteristic tree, mixed with *terminalia* and *acacia*, but there is very little timber left, the forests being mere coppices and utterly exhausted. In Dehra, too, the forests have been felled and re-felled until they are quite worn out, this having been the chief source whence the Upper Doab has drawn its supplies of timber for centuries. In Jhansi, too, the forests contain mere scrub. But in Gorakhpur and Jhansi the Government forests have been clearly defined by the settlement survey, and progress has been made in the Dehra Dun. The deodar forests in the North West Provinces are the main source of supply for sleepers for the Rájputána State Railway, from Delhi to Agra and the Sambhar Lake, a distance of 400 miles, requiring 800,000 sleepers. Much timber has been felled, many sleepers delivered, and others sawn in the Tonse forests, ready to be floated down. The cost of each sleeper delivered at Delhi, from the Tonse and Bhagirathi, is *Rs.* 3. 9. 6., including dues, floating, and cartage. The *sal* sleepers from Kamaun will cost *Rs.* 1. 2. each at the depôts outside the forests, and an extra rupee for conveyance to Agra.

Deodar forests. Gorakhpur. Dehra. Jhansi. Supplies of sleepers.

In 1871–72 the number of sleepers supplied to the Rájputána Railway was 272,381, besides 8,550 tons of sawn timber, 48,451 sal sleepers, and 78,344 cubic feet of sal in scantlings were also sold.

In the Punjab the principal forests of deodar are in the valleys of the Satlej, Bias, Ravi, Chenab, Jhilam, and their tributaries.

Punjab.

In the Kashmir forests, on the Ravi and Chenab, the number of accessible full-grown deodars is estimated at 117,000, but a most wasteful system of working prevails.

Kashmir.

The forests of the Chamba and Busahir States are leased by the Government, and managed by the Forest Department. The Chamba forests, at a height of 5,000 to 9,000 feet in the Ravi and Chenab valleys contain deodar only on steep mountain slopes. The Busahir forests, also containing deodar, are on the Satlej. A large proportion of the deodar in the north west Himalaya is on the top of high precipices, in side valleys and gorges, and cannot be worked without an expensive system of roads and slides, but there seems hopes that what remains will, for some time at least, suffice for the requirements of the Indus Valley railways, as well as for those of large cities and public works in the Punjab. For the future, however, a permanent supply of deodar can only be secured by plantations on a large scale.

Rented forests.

A large portion of the *rakhs*, in the Doabs between the rivers, consisting of about 8,000 square miles of jungle, have been made over to the Forest Department within the last three years. Much progress has been made in the adjustment of claims between the Government and the people, as regards these *rakhs*; the principle being for the Government to concede definite rights to certain portions, whence the village communities can take fuel at their pleasure, on condition that the Government right to the rest is to be considered absolute.

Rakhs.

The general want of wood throughout the Punjab was so much felt that great exertions have been made, of late years, to make up for past neglect. The Changa Manga plantation, in the Bari Doab, is on the canal, and 44 miles below Lahor. It is supplied with water from the canal for irrigating the young trees; 4,200 acres have been planted with *sissu*, *ber*, and *kikar*, and the whole area is doing well. It is to be completed to 7,000 acres in two years, and in 1881 is expected to yield 33,000 rupees. Plantations are also being established on the Jhilam, near Ludhiána, and near Delhi; and there are avenues along the banks of most of the irrigation canals.

Changa Manga.

In Oudh the forests in the Kheri, Bharaich, and Gonda districts, are on high ground, along the Nepal frontier, and are in reality only strips cut off from the great Nepal jungle. They consist of *sal*, *Terminalia*, and *Conocarpus*, interspersed with open glades of grass land. These forests have been demarcated,

Oudh.

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and the trees have been thoroughly cleared of creepers. The Oudh and Rohilkhand Railway will run chiefly on iron sleepers, but fuel for the locomotives will be required from the forests, as well as for the towns.

Central Provinces. In the Central Provinces there are enormous tracts covered with jungle, but only a comparatively small portion is properly forest.

Teak on the Narbada. The forests in the Mandla district, at the head of the Narbada river, contained large quantities of teak trees, but in 1860 they fell into the hands of speculators and the trees were ruthlessly felled. Thence to Ráipur there are most extensive sal forests, but they are very distant from the markets. Lower down the Narbada there is an extensive forest called Dela Kari, near Pachmari, which is the most westerly position of the sal tree in Central India. Still further west, in Baitul and Hoshangabad, are the forests of teak, from which the cities of Ujjain, Indor, and Malwa were built, but there is little now left. The hills, between the Narbada and Nágpur, though covered with forest, contain little timber of any value.

Teak on the Godávari. The vast forests to the eastward, the magnificent teak along the Godávari, and the great *sal* belt round Chatisgarh, extending across the centre of India from the head of the Narbada to Cattack, are also far from the centres of demand. Proper supervision is impossible, and the jungle tribes cut down and destroy at their own will and pleasure.

Teak on the Great sal belt.

Demarcation. But the demarcation of the accessible forests has progressed favourably. A tract of 125 miles has been reserved and demarcated to the north of Nágpur, in the Seoni hills, to supply that city with buildings, timber, and bamboos, while Jabalpur is supplied from the Narbada jungles. The 23 reserve forests of the Central Provinces, grouped in five divisions, comprise a total area of 1,832½ square miles. Broad demarcation lines have been cut through the jungles, pillars erected to define boundaries, and fires successfully excluded from selected tracts.

Unreserved forests. The open or unreserved forests in the Central Provinces are managed by the Deputy Commissioners, and are the property of the Government. Householders take out a license, enabling them to obtain, from the forest lands, the products they require, and the herdsmen take out licenses for grazing. The revenue from these sources is 39,885 *l.*, and the total revenue from the forests of the Central Provinces, 61,497 *l.*

Berárs. In the Berárs there are 646 square miles of reserves, consisting of the Bhairagarh Forest to the north, and five smaller tracts in the southern division.

Mysor. In Mysor and Curg there are three great forest belts, the evergreen, the mixed, and the dry. The first is on the western ghauts, and yields wild jack (*angeli*), *pun*, ironwood, and blackwood. The second is a belt on the eastern slopes of the ghauts, from 10 to 40 miles wide, yielding teak and sandalwood, the latter being a Government monopoly, giving a revenue of 1,600 *l.* The third comprises the eastern part of Mysor, where the *Hardwickia, Terminalia,* and *Conocarpus* grow. The area of reserved forests in Mysore is 398 square miles, of which 247 are already demarcated. A map of the Mysor forests has recently been published.

Curg. In Curg there are 347 square miles of forest, but little demarcation work has yet been done there. In Mysor several plantations have been formed, comprising 368 acres of sandalwood, 123 of teak, and 180 of firewood in course of formation. In Curg there are 300 of teak, and 600 of sandal-

Sacred forests. wood, besides the *Devada Kadu,* or sacred forests, which are the residences of demons, and the hunting grounds of departed heroes. They are never entered, and it seems very desirable that this belief should be encouraged, as it is most conducive to forest conservancy.

Burma. In British Burma the forest land covers 4,480,000 acres out of a total of 60,000,000. Of this, the teak producing forests take up 1,534,080 acres, the forests devoid of teak, but in similar localities, 2,945,920, and there are also

Arakan. low lying forests not included in the above estimate. In Arakan, forest conservancy is restricted to rules for the protection of the ironwood tree (*Xylia*

Pegu. *dolabriformis*). In Pegu are the four main forest divisions of Rangún, Tharrawaddi, Prom, and Sitang; the richest teak localities being on the hills between

the

the Irawadi and Sitang. The teak forests in Tenaserim, which are now much less valuable in mature timber than those in Pegu, form another divisional charge. After Tenaserim was annexed in 1826, a system of licenses for felling timber was introduced, which would have eventually led to the extermination of the teak trees. Rules were promulgated at various times, intended to secure the preservation of the forests, but without much real success. On the annexation of Pegu, all forests in that province were declared to be the property of the Government, and the felling of teak timber without a license was prohibited. In 1856 Dr. Brandis became superintendent of forests in Pegu, and in 1857 the forests of Tenaserim were added to his charge. Rules for preserving the forests were promulgated in 1856, which were afterwards embodied in the Forest Rules drawn up under Act VII. of 1865.

Tenaserim. System of licenses.

Pegu forest rules.

Great progress has since been made in the demarcation of reserved forests, and up to 1872 a total area of 85,538 acres, or 133 square miles, had been sanctioned as forest reserves. Next to teak, the most important forest product is the *cutch*, from *Acacia Catechu*, of which no less than 138,142 maunds, valued at 135,330 *l.*, were annually exported from the province, being collected within British territory. The *cutch* manufactories of the Prom and Thayetmyo districts find employment for 4,000 persons with their families, so that the preservation of the supply is a matter of some consequence. Yet there is no restriction on the felling, and the destruction has been most reckless. The demarcation of the more valuable *cutch* tracts has been sanctioned for treatment as reserved forests.

Demarcation.

Cutch.

The teak plantations commenced in 1856 are in large compact blocks on the river, above Rangún, with a separate system on the Sitang, near Tounghu. They are eventually to extend over 30,000 acres; and up to 1871-72, 1,648 acres had been planted. The calculation is, that after the plantations arrive at maturity, the yield will be 1,200,000 cubic feet, or 24,000 tons per annum.

Teak plantations.

The timber trade of Mulmein is regulated by the establishment of the Kado Depôt on the Sálwen river, six miles above Mulmein. Here all timber imported from independent territory is stopped under charge of the Forest Department until it is sold. It is stored on the banks of the river, and a duty of *Rs.* 2. 12. for each log of 5 feet girth and upwards, and *Rs.* 1. 6. for timber below that standard is paid to the British Government (about 6*s.* a ton). The amount of timber from foreign territory at the Kado Depôt in 1871-72 was 81,343 tons, paying a duty of 20,857 *l.* By the Sittang river 15,252 tons came down, and by the Irawadi, 1,814.

Timber trade.

During 1871-72 the out-turn of the teak forests in British territory was 56,204 logs (52,126 tons), which is considered satisfactory. The whole receipts of the Burma Forest Department was 77,239 *l.*, and the expenditure, 37,919 *l.*, showing a net revenue of 39,320 *l.*

Financial results of conservancy in Burma.

The forests in the Bombay Presidency are spread over a very large area, from Canara in the south to the Mahi river in the north, a distance of nearly 500 miles. The best forest tracts are, as a rule, near the line of the ghauts. Canara, Thana, Kolába, and Khandesh are the districts which contain the largest and most productive Government forests.

Bombay.

In the revenue survey, a certain area of each village was set aside as forest land, and the people also enjoyed privileges connected with the public forests, such as cutting grass and brushwood for manuring rice fields, cutting firewood, and free grants of wood for agricultural and building purposes. The two first privileges have been disposed of by assigning to each village a tract of common and of grazing ground; and the other two were provided for by marking off certain forest tracts as special Government reserves, and granting the ryots free access to the rest, with a restriction as to cutting seven valuable kinds of timber trees for firewood.

Commercial rights.

In accordance with these arrangements, the work of demarcation has been pushed forward, and in 1870 it was nearly completed in the Thana and Colaba Collectorates. It is also proceeding in Sátára and other districts.

Demarcation.

Forest business, in Bombay, is thus closely connected with revenue administration, and in accordance with the advice of Dr. Brandis, who was employed at the request of the Bombay Government in 1870 to visit the forests in the Bombay Presidency, and to submit proposals for their administration; a district forest

Organisation of the Forest Department.

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officer is appointed to each collectorate, subordinate to the Collector, but corresponding with the Conservator of Forests in his division on all technical subjects connected with his work. There is a Conservator of Forests for each division; Mr. Shuttleworth in the north, and Colonel Peyton in the south. The general control of all forest business rests with the Conservators, and they will take the initiative in forest matters, but their orders to district officers must be sent through the Collector. These new arrangements came into operation during the year 1871–72. The receipts from the two divisions for the same year were 93,237 *l.*, and the expenditure, 43,872 *l.*, so that the net forest revenue was 49,365 *l.* Plantations have been formed in Canara and Dharwar.

Sind.

The forests in Sind, along the banks of the Indus, were originally set apart by the Amirs of the country as their hunting grounds, and thus on annexation were entirely at the disposal of Government. They have long been demarcated as Government reserves, and now cover an area of 352,460 acres.

Beylas.

These forests, or *beylas*, depend upon the overflow of the Indus, without which they would speedily disappear. But this inundation fosters the growth of tall dense reed grasses, which require much labour and expense to repress. The loss of forest land by erosion has also been considerable. Some of the forests are but skeletons of what they once were, and the subject is becoming very important. The best remedy, if such were practicable, would be to give up the idea of maintaining permanent forests immediately on the river banks, and to look to their extension in some safer position. The receipts for 1870–71 were 20,135 *l.*, and the expenditure 17,068 *l.*, only leaving a profit of 3,067 *l.*

Madras.

Forest conservancy in the Madras Presidency was founded by Dr. Cleghorn, who presided over the Department from 1856 to 1867, when he was succeeded by Major Beddome. The Government of Madras recorded their satisfaction at the results of Dr. Cleghorn's labours, and their conviction that these results had been attained without any infringement of the privileges of the people. The causes of the want of satisfactory progress, since Dr. Cleghorn's resignation, are the absence of organisation in the Department, and the want of a cordial understanding between the forest and revenue officers.

Dr. Cleghorn's services.

Changes in the organisation of the Madras Forest Department.

In 1871–72 the Forest Department was reorganised somewhat on the plan adopted in Bombay; the district forest officers being placed under the collectors, while the office of conservator of forests was abolished. Major Beddome was appointed inspector of forests with no direct authority over the officers of the Forest Department, who are even prohibited from corresponding with him, but with the duty of visiting the different districts, and offering advice to the collectors.

The system of dual conservancy.

When the Forest Department was formed in 1856, the Government forests had for some time been nominally under the charge of collectors of districts, and as soon as the operations were extended to a district, portions of the forest or jungle, more or less extensive, were retained on a separate footing, under what was styled "Village Jungle Conservancy," with the management of which the forest officers were allowed to have nothing to do. Yet there was no demarcation, and no distinct line drawn, so that the forest officers had no means of knowing the exact boundaries of their jurisdiction; and, as Act VII. of 1865 was not accepted in Madras, there is no forest law in the Presidency.

Confusion.

Examination of forests.

Dr. Cleghorn ascertained where forests existed, and what revenue was to be derived from them, and his researches into the forest capabilities of Madras were most ably seconded by his Assistant Major Beddome, who explored the forests throughout the length and breadth of the Presidency, and is the author of the first Indian forest flora. Felling and slipping operations were conducted in the Animalle and Mudumallai Mountains; the establishments were organised, and three maps were prepared, one of the Denkanikota range in the Salem district by Captain Walker; another of South Canara by Mr. Cadell; and a third by Lieutenant Fullerton of the Wynaad forests.

Railway fuel reserves.

The first attempts at demarcation were made in 1868–69, when a few jungle tracts were marked off as fuel reserves for the railways in Salem, Cuddapah, and North and South Arcot; but in no case were they surveyed or mapped. Mr. Puckle, the collector of Tinnevelli, also did something towards forming reserve forests in his district, by fixing certain limits for grazing, and cutting firewood, which were notified in the district Gazette. But these reserves were never even roughly demarcated. In 1870–71 some tracts in the Madura district

district were selected for the supply of wood for agricultural implements and fuel; and in the same years portions of jungle were set apart in the Madura, Tinnevelli, and Trichinapalli districts as reserves for railway fuel, but no demarcation or survey has been undertaken.

Animalle and Mudumallai teak forests.

In the Animalle there are reserved teak forests, and during 1870-71 there were 363 teak and two blackwood trees felled, and 2,507 teak and blackwood planks were dragged into forest depôts. The receipts from Animalle timber amounted to 4,600 *l.* There is another reserved teak forest at Mudumallai, under Colonel Morgan, but little work was done in 1870-71, owing to the slight demand.

Conolly teak plantation.

Mr. Ferguson.

The finest teak plantation in the Madras Presidency, and indeed in all India, is the Conolly Plantation on the River Bepur, in Malabar. It was formed by Mr. Conolly, the collector of Malabar, in 1844; and in 1862 Mr Ferguson, the present superintendent, took charge. He continued to plant 100 acres a year. The plantations are on undulating ground, along both banks of the river, in a climate where the rainfall is 150 inches. They are in narrow belts, extending for six miles, with a width from half a mile to a mile. The river is navigable to the sea, so that there are great facilities for the removal of timber.

Planting new ground.

In planting new ground the jungle is felled and prepared for burning at the close of the dry season. Nurseries are formed in April. The seed is steeped in cold water for 48 hours, and sown on raised beds of fine mould covered with straw, to prevent too rapid evaporation, and constantly watered until the seeds germinate in 12 to 20 days. When the rains commence, the plants are put out in lines six feet apart, in pits a foot square and deep, filled with good surface mould. The ground is hoed and weeded from time to time, but after four years the young plantations keep down the grass and junge by their own shade. Thinnings are made in the fifth year.

Largest trees.

Number of trees.

Sale of saplings.

The largest teak trees are now five feet in girth, with noble straight stems, without a branch for 60 or 70 feet. Up to 1865, the number of seedlings planted was 1,678,679, occupying 1,696 acres, and at the rate of 1,000 trees to an acre there are now about 1,800,000 trees. The yield in 1870-71 was 4,075 saplings floated to the depôt at Calicut, being the thinnings of the plantation, which more than repay the annual outlay.

Other plantations.

Numerous other plantations have been formed in the various districts, 26 for railway fuel reserves, three or four for teak, and two for sandal wood. At Mudumallai there is a plantation of 20,000 teak trees now six years old, and the two sandal wood plantations contain 38,000 trees. Australian gum trees were introduced into the Nilgiri hills about 20 years ago, and now form magnificent plantations, and ornamental clumps round the stations.

Financial results of forest conservancy in Madras.

The receipts of the Madras Forest Department for 1871-72, were 41,886*l.*, and the expenditure 34,691*l.*, leaving a net profit of 7,195*l.* The receipts are derived from the sale of timber at depôts, removed by purchasers, or supplied to other departments, from permit fees, grazing fees, sales of products, fines, and sales of confiscated timber.

General progress of demarcation.

This brief review of forest administration shows that great progress has been made in the demarcation of reserved forests, which is the most important work in the department, in the North West Provinces, Oudh, the Punjab, the Central Provinces, Bombay, and Sind; but that in Madras little progress has been made, and no systematic measures have been adopted for securing this great desideratum in forest management.

Surveying branch of the Forest Department.

It is considered of such paramount importance by Colonel Pearson that, last year, while officiating as Inspector General of Forests, he obtained sanction for the constitution of a special branch of the Forest Department to survey, demarcate, and prepare working plans for all the reserve and communal forests. The work is to be done on a uniform plan, district by district, the forest survey branch working in concert with the revenue and topographical surveys, and settling the forests, as the revenue officers settle the cultivated land, in consultation with all who claim to be interested in the matter. This is the same procedure as is followed in Bavaria, Prussia, Saxony, and other German States.

Introduction of new trees.

Many exotic trees have been introduced into India by the Forest Department since its formation. The Australian eucalyptus and acacia are established on the

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Cultivation of Para India rubber.

Mr. Collins's Report on caoutchouc.

Para rubber.

Asam rubber.

hills in India, and the chinchona trees of South America will also soon clothe their higher slopes. It is also in contemplation to introduce the cultivation of the *Hevea Braziliensis*, yielding the Para India rubber of commerce, which has been proved to be superior to the article collected by the hill tribes of Asam from the *Ficus elastica*. An exhaustive report on the caoutchouc of commerce has been prepared by Mr. James Collins, in which all the India rubber yielding trees are botanically described, and an account is given of their cultivation, relative values, and uses. The information thus carefully and systematically collected and arranged by Mr. Collins has established the importance of introducing the cultivation of Para rubber into India, and steps have accordingly been taken to obtain seeds. At the same time a good deal may be done to improve the yield of the Asam caoutchouc, by the establishment of plantations on a large scale, and in accordance with a well-considered plan. This measure is strongly recommended by Dr. Brandis, who has added a valuable memorandum to Mr. Collins's report.

Beddome's *Flora Sylvatica*.

Books are much needed for the use of forest officers, especially handbooks for reference in the field, and accounts of systems of forest management in other countries. Major Beddome, in his "*Flora Sylvatica*," of the Madras Presidency, has just completed a most valuable work.

Brandis's *Forest Flora*.

Dr. Brandis is now engaged in completing a "*Forest Flora*" for the Punjab and North West Provinces, commenced by Dr. Stewart, and which has been designed with great care to contain all the information a forest officer is likely to need respecting every important forest plant, and yet to be of such moderate dimensions as to be carried about with ease.

Reports on German and English forests.

An interesting series of reports has also been published on forest management in Germany, Austria, and Great Britain, by Captain Campbell Walker; with a memorandum by Dr. Brandis on the professional studies of forest officers on leave. It contains full particulars respecting the management of forests in Hanover, Prussia, Saxony, Bavaria, Austria, of the Crown forests in England, and of woodlands on private estates in Scotland; and will be most useful in India, as well as an invaluable guide to officers on leave.

Training of candidates for forest appointments.

For the management of a vast system of forest conservancy in India, the provision of thoroughly efficient officers, with a scientific knowledge of forestry in all its branches, is essential. It is also necessary that such officers should be men of strong constitutions, active habits, and aptitude for work. In 1866, Dr. Brandis, the Inspector General of Forests to the Government of India, represented the necessity for adopting some plan to ensure a supply of such men, and his proposals have been adopted with the most satisfactory results. The system for preparing candidates for forest service was commenced in 1867. In that year candidates were allowed to go up for examination before the Civil Service Commissioners, and the seven most promising were selected. It was arranged that these young men, between the ages of 17 and 23, should undergo a regular course of training for two years and a half in the management of forests and the science of forestry, in surveying, road-making, and the natural sciences, either in Germany or France. A knowledge of either German or French was, of course, made compulsory at the preliminary examination. M. Burckhardt, Director of the State Forests in Hanover, and M. Nanquette, head of the Forest School at Nancy, kindly undertook to superintend the training of the young men, and have continued to watch over their progress and direct their studies with the greatest zeal and interest. Between 1867 and 1872, 40 candidates have been selected, of whom 21 have been sent to France and 19 to Germany. The number of young officers already in India, who have gone through this professional training, is now 24, and, although sufficient time has not yet elapsed to judge the merits of the present system by the work accomplished through the agency of the officers trained under it, yet the Government of India has already expressed great satisfaction at the attainments and general tone of those who are now in India. The gradual formation of a thoroughly well-informed and efficient staff will, no doubt, be the means of eventually completing the work of forest conservancy, and of introducing correct principles of forest management into all parts of India.

VIII.—MINERALS.

VIII. MINERALS.

THE mineral wealth of India is practically confined to its coal seams, salt mines, and iron ores; and the latter have not yet been worked profitably on a large scale. Although coal was known to exist as long ago as 1774, and was actually worked in 1775, it is to the more recent labours of Dr. Oldham, and his staff of zealous geologists, that the exploration of the coal fields of India, as well as the geological survey of vast areas in all parts of the country, are due. Mr. Blanford thoroughly examined the Rániganj fields, and those of Chanda and the Godávari. Mr. Medlicott has explored those of the Narbada valley, and other areas have been investigated by Mr. Hughes and Mr. Willson, all members of the Geological Survey.

Mineral wealth of India.

Examination of coal fields.

The coal fields of India lie in a region bounded by the Ganges on the north, and extending beyond the Godávari on the south; while, from east to west, they stretch from the neighbourhood of Calcutta to some distance down the Narbada. Outside this limit, the only coal fields are in Upper Asam and the Khasia Hills. Nearly all the coals come from one geological formation, called "Damuda," from the name of the river (Damodar), in the valley of which the principal coal seams occur. It is the same as that of the Australian beds, and differs very little from the carboniferous group of beds in Europe. But the coal is very different, both in quality and appearance. Its most characteristic distinction is its excessive lamination, and it contains from 10 to 30 per cent. of ash, while the proportion of fixed carbon rarely exceeds 60 per cent., and averages 52 per cent. In average English coal, the ash is 2·7 per cent., and the fixed carbon 68 per cent. Indian coal is only capable of doing from one-third to two-thirds of the work performed by the same amount of English coal.

Coal fields of India.

Mr. Blanford divides the coal fields of India into four groups; 1st, those of the Rajmahal Hills and Damuda Valley; 2nd, those in Rewah, Sirgújah, Chota Nágpur, Tálchir, &c.; 3rd, the coal of the Narbada Valley and Satpúra Hills; and 4th, the new fields in the valleys of the Wardha and Godávari.

Division of coal beds into groups.

On the Rajmahal Hills there are small coal basins in every large valley traversing the range, with seams from three to 12 feet thick. But Raniganj is far the most important of the Indian coal fields, and nearly the whole coal mined in India is obtained from it. The latest returns are for 1868, in which year the number of tons extracted throughout India was 497,000, of which 493,000 came from Raniganj, and 4,000 from all other sources. The field commences about 120 miles north-west of Calcutta, and is 18 miles long from north to south, by 40 wide, with an area of from 500 to 600 square miles. The seams are numerous, and those that are mined vary in thickness from 4½ to 35 feet. Dr. Oldham has roughly estimated the coal available at 14,000,000,000 tons; but many seams vary in thickness, and there are not data for accurate determinations. There are now 44 coal mines at work. The East India Railway has been worked with Raniganj coal ever since it was opened, and the yield of the mines has doubled in the last 12 years. The coal field is now traversed by the chord line of the East India Railway, with a branch line to some of the collieries.

Rajmahal coal.

Raniganj coal fields.

There are four other coal fields in the Damuda Valley. At Jherria, 10 miles west of the Raniganj coal-bearing tract, there are numerous seams of great thickness, which have not yet been worked. The Bokaro field is a long strip of coal-bearing rocks, commencing within a mile of the Jherria field, and extending for 40 miles; but the coal has not been worked, and, so far as is known, it is inferior to that of Raniganj. Ramgarh is a small field, of 30 square miles, to the south of the Bokaro field, and of the same character. Karanpura consists of two basins of coal-bearing rocks, lying west of Rámgarh, and due south of Hazáribagh. They contain a considerable quantity of coal of fair quality. These four, with Raniganj, are all in the valley of the Damuda, and form a belt of coal-bearing rocks extending 150 miles, and occupying 1,500 square miles of country. Over at least half this area workable coal seams of considerable thickness occur, within a distance not exceeding 1,000 feet from the surface; but there is a gradual diminution in thickness of the coal-bearing formations to the westward. Where the Damuda formations attain their greatest thickness, they

Jherria coal field.

Bokaro coal field.

Rámgarh coal field.

Karanpura coal field.

Extent of coal fields in the Damuda valley.

VIII. MINERALS.

they consist of two groups, the upper one 5,000, and the lower 2,000 feet thick, each containing several seams of coal; but to the westward the upper group thins out and disappears, while the lower one gradually diminishes in thickness.

Kurhurbari coal field.

The Kurhurbari coal field, in the valley of the Barakar, a tributary of the Damuda, is to the north west of the Raniganj collieries, and covers an area of 18 square miles. Mr. Hughes calculates that there is a sufficient supply at Kurhurbari to supply 250,000 tons a year for 800 years. The collieries belong to the East India Railway, and a branch line 25 miles long has been made to them from the chord line. There are two very small fields containing no workable coal near Deogarh, in the Santhal Parganahs, and a third, at Itkuri, to the west of Kurhurbari.

Deogarh coal field.
Itkuri coal field.

Palamau coal fields.
South Rewah coal fields.
Coal in the Son Valley.
Biláspur coal field.
Tálchir coal field.

The second group consists of a number of basins scattered thinly over an immense tract of the wildest country in India, and none have been thoroughly explored. The Palamau fields in Chota Nágpur belong to the Government, but there is not much coal. In the South Rewah field the coal exists over an area 40 miles long by 20 broad; in the Upper Son Valley the seams are very numerous, but thin, and of poor quality; in Biláspur and the country west of Chota Nágpur there are seams of coal in several places, some of them of great thickness, and at Talchir, on the Bráhmani river, there is a coal field, but containing no coal of any value.

Coal in the Narbada Valley.
Mopani collieries.
Umret coal field.
Tawa coal field.

The third group is included in the Narbada Valley and the Satpúra hills, which form its southern boundary. Here the Mopani collieries belong to the Narbada Coal and Iron Company. The average thickness of the coal seam is 25 feet, and, though there are numerous faults and dykes, it is believed that a large quantity exists, and that the quality is little inferior to that of Raniganj. At Umret, near Chindwara, there are several seams of fair coal over a considerable tract; and also in the Tawa valley, between Baitul and Hoshangabad. The Mopani coal fields were examined by Mr. Medlicott during the season of 1870-71; and in the following year, 1871-72, he was engaged on similar work in the Sátpura hills.

Coal in the Godávari valley.
Chanda coal.
Warora colliery.
Sastu coal field.

The fourth group of coal fields lies on the edge of the great sandstone tract which occupies the valley of the Godávari, and its tributaries, the Wurda and Pranhita, from the neighbourhood of Nágpur to that of Ellor. Workable coal is known to exist in several localities, which have been examined by Mr. Blanford and by Mr. Hughes. The existence of coal in the Chanda district, in the Central Provinces, was first pointed out by James Prinsep in 1830, but the geologists of the survey were the first to trace out the limits of the field, and to make a detailed examination of it, which is still in progress. The existence of a very thick seam of coal and carboniferous shale has been ascertained, 50 to 70 feet thick, over a large area of the Central Provinces and Berár, and again a few miles further south in the Nizam's territory. The quality of the coal hitherto mined is inferior to that of Raniganj, but good enough for railway purposes. There are several borings in the Chanda district, but the principal shaft is sunk at a place called Warora. It was impeded by water, and new and more powerful pumps were ordered from Bombay, to be ready by August 1872. New machinery has also been sent for, and sinking was to have been recommenced in December 1872. Sixteen borings have been made to prove the area of the Warora beds. Six of them proved coal 12 feet thick, and it is estimated that 5,000,000 tons are available, sufficient for a yield of 50,000 tons a year for a hundred years. In 1870–71 Mr. Whyte, who is engaged on similar investigations in the Nizam's territory, proved the existence of coal at a place called Sastu, more than 50 feet in thickness.

Sandstones in the Nizam's territory.
Kamáram coal field.

Mr. Blanford during 1870-71 carried on the general mapping of the extent of the sandstone area in the eastern part of the Nizam's territory, and southwards into the Madras Presidency, towards Ellor. These sandstones appear to belong to the true coal-bearing rocks, but they are for the most part devoid of coal. At Kamáram, in the extreme east of the Nizam's dominions, and 100 miles north-west of Ellor, there are two seams, 9 and 6 feet thick respectively, of good quality, but only occupying an area a quarter of a mile square. In 1871–72 Mr. King, of the Geological Survey, discovered coal at a place called Sinharani, 30 miles south-east of Kamáram, where about two feet of the seam are visible. Further research

research is necessary, but the Sinharani bed is interesting as the most southern coal yet discovered in India. Mr. Blanford in 1871 mapped the coal-bearing rocks of the Godavari, and a series of borings were taken, in accordance with his suggestions, near Dumagudem, the head quarters of the navigation works at the first barrier of the river; but the coal was found to be of inferior quality.

Singareny coal field.

Dumagudem coal field.

Outside these four groups of coal fields there are two to the eastward of Calcutta. One, where some coal has been found of excellent quality but of limited extent, is on the Khasi hills, 4,000 feet above the level of the plain; the other is one of the most promising fields that has hitherto been discovered. It occurs in the Dibrugarh and Sibsagar districts, in the extreme east end of the Asam valley, and there are several seams of excellent coal; but the country is densely covered with forest and very thinly peopled, which makes it unfavourable to commercial enterprise.

Coal in the Khasi hills.

Coal in Asam.

Indian coal, on account of the quantity of ash, is ill suited for use in sea-going steamers. The development of the coal-producing industry of India will be caused by the local demands of the public works, of railways, river steamers, and manufactures, and hereafter Indian coal will probably be employed in manufacturing iron.

Use of Indian coal.

Iron-producing minerals are widely scattered over India, and consist, 1st, of magnetic and specular iron ores and red hematite, in beds and veins; 2nd, of clay iron ores from the coal-bearing strata; and 3rd, of surface deposits derived from the waste of metamorphic and sedimentary strata, and from laterite. The latter formation contains from 20 to 30 per cent. of iron.

Iron ores in India.

Some of the most remarkable deposits of magnetic iron ores are in the Salem district of the Madras Presidency. The ores occur in immense beds, 50 to 100 feet thick, the outcrop of which may be traced for miles. On one hill, six miles from Salem, there are five bands of magnetic iron from 20 to 50 feet thick. At Lohára, in the Chanda district of the Central Provinces, there is a hill two miles long and half a mile broad, the surface of which is covered with masses of almost pure iron ore. In Bandalkhand and in the Narbada valley there are large quantities of hematite ores, the supply in many cases being practically inexhaustible. The clay iron ores in the Raniganj and other Damuda coal fields yield 39 per cent. of iron. The Kamaun iron ores form an argillaceous band, containing large quantities of red hematite, the ore bed being 10 to 20 feet thick, and extending for a long distance. The surface deposits supply the greater proportion of ores used by native smelters, but much labour is necessary in the collection.

Iron in the Salem district.

Iron in the Chanda district.

Iron in Bandalkhand and the Narbada valley.

Iron in the coal districts.

Kamaun iron ores.

Iron has been manufactured in India from time immemorial, and weapons of that metal are even found in the ancient cromlechs and kistvaens, but there never were any large works. The production of iron is the work of poor people of very low caste scattered over the country. They have small clay furnaces, with charcoal for fuel, and the blast caused by foot or hand bellows. The smelting goes on for eight or ten hours, at the end of which time from 10 to 20 lbs. weight of iron is found at the bottom of the furnace, and is purified by re-heating and hammering, the resulting iron being generally of excellent quality; but the native manufacture is rapidly decreasing, owing to the difficulty of obtaining charcoal.

Native manufacture of iron.

All attempts to manufacture iron, made by the English, have hitherto utterly failed. In 1825 Mr. Heath, of the Madras Civil Service, obtained a Government advance, and formed a company to establish iron works at Porto Novo, near Cuddalor; at Polamputi, near Salem; and at Bepur, where the iron was obtained from laterite. The Porto Novo works were commenced in 1833, and those at Bepur some years later; but, in spite of help from Government, there was nothing but failure, attributed to the distance of the works from the source of supply, to scarcity of charcoal, and to other causes. Company succeeded Company, and at last there was an utter collapse. In 1857 Mr. Sowerby, an enginer, reported on the iron ores in Kamaun, but the repeated attempts to work them have ended in financial failure; and a similar attempt by a Calcutta merchant, who started works near Suri, in Bírbhum, was also abandoned.

Experiments in iron manufacture.

Madras iron works.

Kamaun iron experiment.

Bírbhum iron experiment.

The enterprise of the Government in the Narbada valley, however, promised well, and might have been most successful. Works were erected at Burwai, on the Narbada, under the auspices of Colonel Keatinge. Mr. Mitander, a very

Government iron works at Burwai.

VIII. MINERALS.

very able Swedish metallurgist, was induced to take charge of the works, and, after many experiments, all difficulties were overcome, and the works were ready for the production of iron. Suddenly, in 1864, the Government, after spending 75,000 *l.* on these preliminary expenses, dismissed Mr. Mitander, closed the works, and offered them for sale, without success. They have now, with the ground on which they stand, been made over to Holkar. Iron-ore and limestone abounded in the neighbourhood; large forests, furnishing supplies of charcoal, extended for many miles to the east and north-east; and Mr. Mitander was an excellent manager as well as a scientific metallurgist. No record has even been preserved of the experiments and plans of Mr. Mitander for burning and storing charcoal, and for other processes, which would have been useful hereafter.

Burwai iron works.

Mission of Mr. Bauerman.

The Government are now once more anxious to foster the iron manufacturing industry of India. In 1872 Mr. Bauerman was sent out to report on the subject; and the increasing price of iron in England is most favourable to the prospect of the manufacture proving profitable in India. The use of Indian coal for smelting iron has never yet been tried.

Salt mines.

The supply of salt from the Salt Range running through the Jhilam and Sháhpur districts, and on to Kalábágh, is practically inexhaustible. The principal beds occur in the southern slopes of the range, and are from 150 to 200 feet in thickness. The mines are of two kinds: one where the salt rock is approached by galleries and excavations, and the other where, as at Kalábágh, the salt is at the surface, and is quarried. It is excavated at four places, namely, at Kheora, now called the Mayo Mine, and the Sardi Mines, in the Jhilam districts; at the Warcha Mine in Shalipur; and at the Kalábágh quarry. Salt exists in large quantities at eight other places, but these mines are closed to prevent smuggling. In the Kohat district, salt is obtained from five quarries in the chain of hills running from the Indus towards Bohadur Khel, and is of a black or dark green colour, being found near the surface. With reference to the supply from the Salt Range, Dr. Oldham says, that nowhere else in the world are salt deposits of such vast extent and purity known to exist.

Kheora Mine, or Mayo Mine.
Sardi Mines.
Warcha Mine.
Kalábágh quarry.
Kohat salt.
Supply from the salt range.

Copper mines.

There are copper mines in Kamaun, Garhwal, Nepal, and Sikkim, which are worked on a very small scale by natives, and the produce is very considerable. There is a small mine at Jaipur, in Rájputána, and copper ore is found in the hilly portions of the Gurgáon and Hissar districts, and in Kulu and Spiti. There is also copper ore in Singbhum, to the westward of Midnapur, extending over 80 miles; and old workings abound, but much fine ore remains. Lead occurs, in the form of sulphuret or galena, in Kulu, Garhwal, and Sirmur, in the north-western Himalayas. There is also a lead mine near Sabáthu, in the Simla district, worked by the "Patiála and Subáthu Mining Company," which yields about 40 tons of ore a month, containing 16 to 72 per cent. of lead. In 1869 Mr. Blanford examined a promising lead vein at Chicholi, near Raipúr. There are very rich tin deposits in Tenaserim and Martaban, and a project has been submitted to the Government for working them; but the country is very wild, covered with dense forest, and thinly inhabited, and there are no roads or means of carriage. Gold occurs in many parts of India, but always in very small quantities in stream gravels. It is occasionally extracted in the north-west Himalayas, Chota Nágpur, Assam, Sinhbhum, the Godávari valley, and some other places. In the Punjab not more than 3 or 4 annas' worth of gold can be obtained by a hard day's labour at washing. Silver occurs, associated with lead, in Kulu. Antimony, in the form of what the natives call *surma*, is produced in great abundance in the Himalayan range, and, reduced to fine powder, is sold by druggists as a cosmetic for the eyes. The ore occurs in Kulu and Lahaul. An ore of cobalt, in small quantities, is obtained near Jaipur, in Rájputána, and is used for colouring enamel.

Lead ores.
Tin deposits.
Gold.
Silver.
Antimony.
Cobalt.

Petroleum.

Petroleum is procured in considerable quantities from Upper Burma, and some is known to exist in Pegu and Asam. Mr. Theobald, of the Geological Survey, reports its discovery in Pegu, in several localities, but nothing but experimental shafts can satisfactorily settle economic value. A little oozes from the ground at several places in the Punjab, and gasworks were erected at Ráwal Pindi,

NOTE

The numbers on this Index are repeated in the following list, with a reference to the Volumes of the published Memoirs & Records of the Geological Survey of India &c. where the Maps will be found.

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AN INDEX TO
THE GEOLOGICAL SURVEY
OF
INDIA
1872.

Scale of English Miles.
100 0 100 200 300

Colours

Geological Maps Published
Preparing
Survey in Progress
Reports only

The Sheets of the Indian Atlas are to be coloured Geologically, and some of them are in preparation.

Edwd. Saunders Geogr.

Pindi, with the intention of utilizing this mineral oil for lighting the station. But the supply was found to be insufficient.

Labours of the Geological Survey.

Dr. Oldham and the staff of the Geological Survey have done all that was possible, in the time that has elapsed since their labours commenced, 22 years ago, to acquire and disseminate an accurate knowledge of the mineral resources of India, while their investigations, embracing the whole range of geological science, of which inquiries into the economic value of minerals form but a part, have achieved most satisfactory results. In spite of all difficulties of climate, inaccessibility of districts, and slowness of means of travel, they have examined an area about four times as large as Great Britain. The detailed and matured results of the survey of each district are published in the "Memoirs," with maps and illustrations, while the "Palæontologia Indica" is a superb series, containing figures and descriptions of organic remains collected during the progress of the survey. The ninth volume of the "Memoirs," published in 1872, is chiefly devoted to the geology of the native principality and remarkable island of Kach (Kutch), together with the desert Runn, the district of Nuggur Parkur, and the lower course of the Puraun, the most easterly of the deserted channels of the Indus Delta. Many geological doubts and difficulties had been caused by former partial examinations of Kach, and as they had an important bearing in the solution of similar questions in other parts of India, their investigation was undertaken. The map constructed by the geologist, Mr. Wynne, is on three large sheets, printed in colours in Colonel Thuillier's establishment at Calcutta, and under the charge of Captain W. Murray. It is altogether a work that cannot fail to attract scientific notice.

IX.—TRADE AND MANUFACTURES.

Trade of India.

THE trade of India is only represented in a small degree by the returns from the great seaports, for the bulk of production is consumed in India itself, and external commerce is only a fraction of the internal trade.

Exports.

Yet the exports, exclusive of treasure from Calcutta, Bombay, Karáchi, and the ports of Madras and Burma, amounted to 63,185,847 *l.* in the year under review, and the imports to 31,083,747 *l.* 11,573,813 *l.* of gold and silver were imported, and only 1,476,093 *l.* exported, so that the precious metals to the amount of 10,097,720 *l.* remained in India. This process has been going on from time immemorial, and has always been the most curious and interesting feature of Indian trade. Vast quantities of gold and silver are used as ornaments, or buried and hoarded, but still the increasing flow of silver to the East continues, without apparently affecting the general course of trade or of prices.

Influx of precious metals.

Imports.

The value of Calcutta exports is above those of any other port, amounting to 27,477,127 *l.*, exclusive of treasure, while those of Bombay are 24,121,108 *l.*; of the Madras ports 7,006,227 *l.*; of Burma 2,790,752 *l.*; and of Karáchi 2,806,246 *l.* The Bombay imports are worth 10,792,758 *l.*; those of Calcutta 15,667,235 *l.*; of Madras 2,615,078 *l.*; of Burma 1,391,217 *l.*; and of Karáchi 1,500,000 *l.*

The great article of export from India, if not in value, certainly in quantity, is rice, on which there is a duty. The rice trade is flourishing, and improving everywhere, and, exclusive of transport from one Indian port to another, its value is close up to 4,446,588 *l.* Over 16,000,000 cwts. are exported, of which more than half is shipped from Burmah; Calcutta exports 5,000,000 cwts.; Madras about 2,000,000; Bombay and Karáchi another 550,000. In Burmah the rice exports have enormously increased. Saigon and Bangkok are not only quite unable to compete with British Burma in the European markets, but Burmese rice also goes to China, and supplements the supplies from Siam and Cochin China. There are now no less than 26 mills for cleaning rice at the seaports of Burma, worked by steam machinery.

IX. TRADE AND MANUFACTURES.

Cotton.

Cotton comes next to rice as an article of export. The total quantity shipped from Bengal, Bombay, Sind, and the Madras ports is 809,246,087 lbs., valued at 21,272,430 *l.* Here Bombay takes the lead, and distances all competitors; she exports 540,404,613 lbs. of cotton, worth 14,820,737 *l.*; and Sind, 15,344,129 lbs., worth 438,676 *l.* Bengal follows, with 164,476,961, worth 4,036,956 *l.*; and then come the Madras ports, with 73,771,643, worth 1,684,942 *l.* The largest quantity in Southern India is grown in the Tinnevelli district, 26,600,000 lbs. being shipped from the port of Tutikorin; and 17,000,000 lbs. come from the Godávari district; but the largest shipments, amounting to 29,000,000 lbs., are made at the port of Madras itself. There has been a great increase of cotton exports from the Burmese ports, and the shipments amounted in 1871-72 to 13,831,000 lbs. Piece goods and twists are also exported from the chief ports of the Madras Presidency in no inconsiderable quantities. But a vast quantity of cotton is worked up in India, and the heavy duty on imported piece goods necessarily fosters and encourages the home manufacture. There are no less than 11 spinning and weaving companies in Bombay, and eight in other towns of the Presidency; those in Bombay working 404,000 spindles, and 4,294 looms, by means of 19 steam engines. These are quite independent of the old native manufactories, and were started entirely in consequence of the inferiority of the piece goods imported from Manchester. The deterioration of Manchester goods is undoubted. The first factory was started at Kurla in 1863. This Kurla factory now has 35,836 spindles, and 730 looms; and at Súrat, Broach, and Ahmadabad, there are also large factories. Several thousand hands thus find employment, and a very lucrative branch of industry has sprung into existence. There is also the Elgin Cotton Spinning and Weaving Company at Cawnpúr, and the Goosey Cotton Mills Company near Calcutta, for the manufacture of mule twist from Indian cotton. The pressing and cleaning of cotton for exportation also gives rise to a thriving branch of industry. In Bombay there are 28 pressing and ginning companies, besides a factory in Ratnagiri, and several worked by steam power, at Khangaon in Berár. There is another such company at Mirzapur, and another at Madras, besides works for pressing at Karwar, Tutikorin, and other ports. But cotton is still more extensively manufactured by the natives themselves in all parts of India. There are 84 cotton manufactories in the Punjab, and the value of the goods annually turned out is 1,800,000 *l.* In the North West Provinces the same industry exists, and in Oudh there is a vigorous trade in coarse homespun cloths. In the Central Provinces there is a large demand for cotton for home consumption, which checks the export materially, and there are considerable manufactories at Nágpur, and one or two other towns. In Mysor cotton cloths are woven in nearly every district, and in Astagram alone there are 10,730 looms, employing 32,240 workmen, and turning out cloths and cumblies to the value of 64,000 *l.* a year. In Madras there is actually a considerable export trade in piece goods and twists. In British Burma quantities of cotton goods are made, chiefly for home use, in small hand-looms. A loom is a usual article of furniture in the house of every Burmese; yet the amount of imported cotton goods is enormous, their value at the port of Calcutta alone being nearly 10,000,000 *l.*

Cotton manufacture in India.

Cotton pressing.

Cotton manufactories.

Hides and skins.

Rice and cotton are products which are common to all the Presidencies, and figure in the export returns of their ports. Hides and skins are also exported largely from all the ports, upwards of 20,000,000 having been shipped during 1871-72. In this item Calcutta stands highest, having sent off 11,000,000, worth 1,900,000 *l.*; then comes Madras with 7,000,000; and Bombay and Sind follow with smaller quantities.

Opium.

Jute.

The other exports are to a great extent peculiar to special districts or provinces. Thus indigo, tea, and jute specially belong to Calcutta, and opium to Calcutta and Bombay. Of these the opium is most valuable, the 49,455 chests exported, being worth 6,850,000 *l.* But by far the largest quantity, and the most valuable special article of export from Calcutta, next to opium, is jute. This fibre was always well known, and is described by Buchanan Hamilton, and Roxburgh, but the increased demand for it in Europe and America arose during the American War, and has gone on steadily increasing. It is chiefly cultivated in Dacca, Purniah, Malda, and Rungpur, all Bengal districts; and there are four jute companies with factories for the manufacture of gunny bags, for which there is an enormous demand.

The

The importation of jute into Dundee alone amounts to 1,000,000 bales (about 140,000 tons) a year, and it is an interesting fact that nearly all the whale oil from the Arctic regions is used up by the Dundee jute factories. A great trade in gunny bags, for packing grain, has sprung up between Calcutta and Burma, and in 1871-72 as many as 5,700,000 bags were sent to Burma, worth 180,000 *l.* They are also in demand for packing sugar. In 1871–72 the quantity of jute exported from Calcutta was 6,100,000 cwts., worth 4,000,000 *l.*, which is an enormous increase on the previous year, besides jute manufactures, valued at 190,000 *l.* The export of indigo amounted to 67,000 cwts., worth 2,500,000 *l.*, which is also an increase on the previous year; and of tea 17,000,000 lbs., valued at 1,400,000 *l.* The tea trade is steadily increasing, and is not confined to Calcutta altogether, for some of the Punjab tea finds its way down the Indus, and has successfully competed with foreign tea in Sind, having checked the imports at Karáchi to the extent of 11,540 *l.* Indiarubber, from the *Ficus Indica* of Asam, is also a product peculiar to the region whose commercial centre is Calcutta. Its export is largely increasing, and in 1871–72 amounted to 15,623 cwts.

Gunny bags.

Indigo.

Tea.

Indiarubber.

Sugar is one of the most profitable crops, and is grown on the best lands in many parts of India; but no very great quantity is exported, about 372,000 cwts., Madras taking the lead with 200,000 cwts., valued at 125,000 *l.*, and Calcutta and Bombay following.

Sugar.

The special product of the Madras Presidency is coffee, the great mass of which is brought down the ghauts from the hill districts of Curg, Wynaad, and the Nilgiris, to be shipped from the Malabar ports. Some is also shipped in South Canara, and at Tutikorin. The whole quantity exported in 1871–72 is given at 56,363,000, valued at 1,368,000 *l.* But this does not include coffee grown in the hills of Travancor, and shipped from the ports of that State. There has been a steady increase in the last few years in the yield of coffee, which is now one of the most important products of the South of India. Chinchona bark is now annually exported, both by Government and by private planters, and the quantity will now rapidly increase year by year. Small quantities of tea, amounting, in 1872–73, in all to 33,000 lbs., and 45,700 cwts. of indigo, and 4,800 of jute, were also exported from Madras. Its other leading exports are oil seeds, spices (including black pepper), tobacco, and cocoa-nuts.

Coffee.

Wool is an export confined almost exclusively to Bombay and Sind, for the shipment from Calcutta only amounted to 1,133 lbs. In Bombay there was a considerable increase, owing to the very high prices ruling in Europe, the export of wool from Bombay in 1871–72 amounting to 22,000,000 lbs., and from Karáchi to 2,000,000. In British Burma, besides rice, the great exports are timber and *cutch*. The demand for timber is increasing, and 42,637 tons were exported, valued at 291,262 *l.* *Cutch* is manufactured in large quantities for export to Europe from the *Acacia catechu*, chiefly in the Prom district. In 1871–72 the amount exported was 115,755 cwts., valued at 70,142 *l.*

Wool.

Cutch.

The shipping for the carriage of this great Indian trade is represented by about 1,230 square-rigged vessels, 948 steamers, and over 50,000 native craft, besides 1,414 steamers and sailing vessels trading to British Burma. At Bombay and Karáchi the steamers preponderate, while sailing vessels are more numerous at Calcutta and Madras. The chief present interest in the seaborne traffic of India lies in the development of the transport of merchandise by the Suez Canal. Calcutta and Bombay reckon up their relative advantages with some anxiety in reference to the great changes caused by the completion of railways, and of the canal through the isthmus. As regards the railway traffic from the interior, Bombay is 850 miles from the junction of the lines, while Calcutta is only 560. Moreover, coals are cheaper along the route to Calcutta, the gradients less, and consequently there is less haulage. On the other hand, Bombay is10 days nearer to Europe by the Suez route than Calcutta; and much of the import trade of Karáchi has already been diverted to Bombay since the opening of the railway lines and the Suez Canal. During the year 1871-72, there were 88 arrivals, and 90 departures, of Suez Canal steamers at and from Bombay, against 75 and 76 in the year before; and the opening of the canal has caused the gradual rise of a trade between Bombay and Trieste, Genoa, Constantinople, and Odessa, which did not exist previous to 1869. The largest trade is with Trieste, amounting to exports valued at 800,000 *l.*, and imports to 77,000 *l.* The Russian

Shipping.

Suez Canal.

Rivalry of Calcutta and Bombay.

Suez Canal.

Suez Canal steamers.

New routes of trade.

IX. TRADE AND MANUFACTURES.

Russian trading venture.

Russian ventures were largely subsidised by Government. In March 1871 two steamers were sent as an experiment from Odessa to the Indian Seas with a cargo of coal, returning with cotton, rice, coffee, gum, and pepper. In 1872 one of the steamers made two more voyages to Bombay, but the venture was not a commercial success. It was supported by a Government grant, with a view to forcing an Indian trade forward, under the Russian flag.

Land traffic.

Afghan povindahs.

In addition to the seaborne commeree of India, there is the land traffic through the passes of the Himalayas, which lead from Sind and the Punjab to the lofty plateaux of Afghanistan, Turkistan, and Tibet. In 1862 Mr. Davies estimated the trade beyond the mountain frontier at 1,000,000 *l.*, and it has no doubt considerably increased during the 10 years that have since elapsed. The class of Afghan traders, called Povindahs, pasture their numerous camels on the plateaux of Ghuzni and Kelat-i-Ghilzi, paying tribute to the local chiefs. These Povindahs number some 12,000 fighting men, with 60,000 camels, and their trade, by the Gomul Pass, is worth 60,000 *l.*, in spite of the serious disadvantages with which they have to contend. Every year they lose a hundred or more men, and at least two per cent. of the camels, besides some hundred loads, at the hands of Wuziri and Suleiman Khyl tribes; the latter, as well as the Povindahs, being subjects of the Amir of Kabul. The Povindahs are also the victims of most unequal and heavy exactions at the hands of the Amir's officials. For instance, from among the imports to Hindustan, camel loads of assafœtida and of walnuts, worth respectively, 130 rupees and 16 rupees, pay equally 18 rupees per camel load. Camel loads of pistachios and pomegranates, worth 120 rupees and 30 rupees, pay 32 rupees and 18 rupees. Among exports from Hindustan, English cotton goods, worth 1,000 rupees the camel load, pay 74 rupees; indigo, valued at 400 rupees, pays 72 rupees; tea, worth 800 rupees the load, pays 98 rupees duty. If the route was made safe, and the duties were fixed at a moderate *ad valorem* rate, the Povindah merchants might make four trips in the year instead of one, because they could proceed independently, instead of being obliged to collect in strong caravans; and the value of the trade would assume much larger proportions. The Kafilas move towards the plains in October, leaving their families at the foot of the hills. The largest proceed to Multan, and thence find their way to the chief marts of India, going by Bhâwalpur and Sirsa to Delhi, Benares, and Calcutta. They bring down the wool of Kerman to Amritsar and Ludhiana, which places do not attempt to rival Kashmir in the production of the higher descriptions of shawls, but prefer to produce the coarser and cheaper article most in demand. As the same looms do not suit both staples, the demand in these towns for the finer Turkistan pashmina (the Kuchâri and Turfani) is small, and they draw their supply of the coarse staple from Changthán. It is only used to give quality to the Wahab Shahi fabrics made out of Kerman wool. In 1851–52 the import of Kerman and pashmina wool into Amritsar amounted to 1,250 maunds of the last and 100 of the first; and ten years later there were 1,000 of the first and 500 of the second. Now Kerman wool is one of the most important Povindah imports by the Gomul and Gwaleyri route. The Povindahs also import raw silks, gold and silver wire, dried fruits, and almonds of Kabul, horses and ponies; returning with cotton and woollen goods, scarves, the gold thread of Delhi, the brocades of Benares, indigo, and drugs. This traffic has existed from time immemorial, but the commercial relations between British India and Eastern Turkistan, across the Himalayas, only date from 1867, when Dr. Cayley was first sent as Resident to Ladak. In 1870 the Maharajah of Kashmir was induced to abolish transit dues on goods passing from India to Central Asia, the negociations being conducted on the part of the English Goverment, by Captain Grey. The equivalent given was the remission of all Indian sea-board duties on trade between the Maharajah's territorities and Her Majesty's dominions. It was arranged that the Maharajah should found a town on the route by the Changchemmo Pass, to be a free market where the Indian trade in tea, cotton goods, cutlery, &c., brought so far on good roads made by ourselves (there being a cart road up to Kulu, and a good mule and camel road in course of construction through Lahoal), might meet the Turkestan pashmina, Tibetan wool, and Changthán borax. A central mart will permit of two yearly journeys being made by the Turkestan traders, instead of one, and at once develope the trade, already much increased by the removal of duties and other impediments, and by the improvement of the communications. One item of trade for which there

Duties levied by the Amir of Cabul.

The Kafilas.

Establishment of central mart.

there is a great demand in Europe, is borax. It is procurable at Rudok, in Chang-thán, at 10 annas per maund, of such quality that only about a quarter is lost in refining, whereas that obtained at Puga, the Maharajah's monopoly, loses one-half. The former, however, has now to be brought on sheep to Rampur, on the Satlej, at the rate of two miles a day, so that the price in the plains becomes 6 to 7 rupees a maund, raw, and 15 rupees per maund refined; and it is exported at 25 rupees a maund at the sea board. Notwithstanding this profit the export is small owing to the difficulties under which the supply now labours. The consequence of the abolition of transit duties was, that by 1871 the traffic had increased seven-fold; in that year it amounted to 124,177 *l.* The Yarkandi merchants used to meet the Indians from the Punjab at Leh, but now the Amritsar traders find that the Yarkandis are coming down in yearly increasing numbers to the Punjab to attend the Palampur fair in Kangra, so they do not trouble themselves to undertake the weary journey up to frozen Ladak. It is to be regretted that nearly 50 per cent. of the total imports from Turkistan consists of bhang. But next in importance comes gold dust. £. 8,590 worth was bought in 1871, and the supply is likely to increase, as a new goldfield has been discovered near Khotan. Next comes pashmina, or shawl wool, most of which goes to Kashmir, hardy baggage ponies, silver ingots, carpets, felt sheets, and raw silk. The latter article is capable of great development. The Yarkandis take back cotton piece-goods, for which there is an immense demand, Kashmir shawls, sugar, Kangra tea, gold brocades of Benares (kincobs), and spices. Mr. Shaw has recently called the attention of the manufacturers of Manchester and Bradford to the importance of developing this trade. Kashgar is only 390 miles from Jhilam, in the Punjab; and it is demonstrable that English merchants could convey their goods to Turkistan at a cheaper rate than the Russians, and that they could, therefore, undersell them. The cost of transport of 1 cwt. of cotton piece-goods from Moscow to Eastern Turkistan is 4 *l.* 7 *s.* 8 *d.*; the same from England is 3 *l.* 17 *s.* 5 *d.* All that is necessary is to send suitable goods to the markets, and to study carefully the tastes of the buyers. The goods brought in exchange are admirably suited for a long and difficult mountain route, being of small bulk and great value, raw silk and gold dust. A great development of this interesting trade may be expected in the near future. In the Eastern Himalayas there are fair trade routes from India to Tibet, by Nepal, by Darjiling, by Bhutan, and by Asam and Tauang. The latter is most used, and there is a great fair twice a year at Udelgiri; but it is hopeless to expect anything but opposition from the Chinese Government.

Trade with Eastern Turkistan.

Yarkandi traders.

Trade with Eastern Turkistan.

Sudya Fair.

An annual fair is held at Sudya, near the north-eastern frontier of Asam, which is frequented by Mishmis, bringing indiarubber, wax, skins, and other produce from beyond the frontier, and by people of the Abor, Miri, Khampti, and Singpu tribes. The total value of the forest products brought to the fair is estimated at 2,570 *l.*; and, in exchange, the tribes take away with them Asam cloths, brass lotas, silver earrings, beads, brass wire, and opium. There is an evident wish for an active and extensive trade with the markets of the plains, and the fair is tending more and more to cement friendly feelings with the hill people. It is extremely important, because the Sudya fair is the forerunner of future direct commercial intercourse between Asam and the western provinces of China.

Internal trade.

Punjab.

Indus traffic.

As the largest portion of the products of India is consumed in the country, the internal trade is even more important than that with foreign countries; and the condition of the people may, to some extent, be shown by the character of the traffic between province and province. The materials for such an examination are not, however, very complete. In the Punjab the exports and imports nearly balance each other; the latter slightly preponderating, 2,350,000 *l.* against 2,780,000 *l.* The trade on the Indus, valued at 105,000 *l.* for the up traffic, and 630,000 *l.* for the down, is registered at Sakkhar, in Sind. The Punjab is an important manufacturing country, the value of the yield from looms and work-shops being 4,850,000 *l.* From the handlooms come white and coloured cotton cloths, and thick floorcloths with coloured stripes. The woollen manufactures are from the exquisitely soft fleeces of Rampur and Kerman, from country sheep, wool, and goat and camel hair. The silk manufactures of the Punjab form an important branch of industry. The chief seats are at Amritsar, Lahor, Multan, Bhawalpur, and Jalandur; and the raw silk is obtained from the Afghan and Yarkandi merchants, from Bengal and China. The manufactures are valued

Punjab manufactures.

IX. TRADE AND MANUFACTURES.

at 150,000 *l.* a year. From Delhi come the silk embroideries, and Benares is famous for its gold brocades. In the Bombay Presidency there are extensive silk manufactures, all by handloom weaving, and all consumed at home, the raw silk coming chiefly from China and the Persian Gulf. At Ahmadabad there are manufactures of brocades rivalling those of Benares. The exhibitions at Lahor, Rurki, and Calcutta, in 1864, at Nágpur in 1866, and at Madras, and other places in India, have been very useful in stimulating manufactures, and making designers mutually acquainted with the products of the different parts of a vast empire. The commencement of European influence of the best kind on Indian manufactories is beginning to be clearly perceptible. An advance is being made in every department, but schools of design are much needed, and one at Lahor has been determined on. The labours of Dr. Hunter at Madras in this direction have been most useful.

Manufactures of Delhi and Benares.

Bombay silk manufactures.

Exhibitions.

Prospects of Indian manufacturing industry.

If the once famous manufactures of Bengal, the silk stuffs and Dacca muslins, have nearly disappeared, it has only been to change their seats, but not to be destroyed. These industries not only still exist, but they are growing in importance, and in some respects are likely to hold their own against the imports from Europe. The very fine and richly decorated tissues, for instance, will probably always be better and more cheaply manufactured by hand.

Oudh trade.

Trade in the Central Provinces.

In Oudh there is great excess of exports of agricultural produce over imports, and the province is dependent on outside trade for all manufactured goods, except coarse cotton cloths. The Central Provinces have large cotton manufactories, and the railways carry the great bulk of the traffic. A good deal of China silk is also used up in making the ornamental borders of the better sort of Nágpur cottons; and a considerable quantity of coarse brown silk, commonly called tussac, is raised in the Chattisghar country. The importation of cotton and grain from Málwa is increasing, the arrival of cocoanuts from the North West Provinces has nearly doubled, and the imports from the east coast consist of salt and tobacco. Cotton is, of course, the great article of export. The whole external trade of the Central Provinces is valued at 14,003,917 *l.* In Mysor there is no regular system of registering the trade; but the value of the exports for 1871-72 is given at 1,100,000 *l.* They consist of betel nut, coffee, cotton, cardamoms, rice, silk, and sugar. The imports were 1,070,000 *l.*, consisting mainly of iron, gold, pepper, salt, and pulses. Silk and cotton manufacture is carried on to a considerable extent, as well as the working of cutlery, copper vessels, and gold and silver lace. There is a large sugar manufactory at Palahalli, in the Ashtagram division. In the Madras Presidency complete information respecting internal trade and manufactures is wanting.

Mysor.

Mysor trade.

Mysor manufactures.

Fairs in India.

The numerous fairs held all over India, generally on occasion of pilgrimages to shrines, are most useful as stimulants to trade, and as extending the knowledge and increasing the wants of the people. At the great Delhi fairs 50,000 persons assemble, some of them coming from distances of 500 miles; and at the last great solar eclipse at Thaneswar, in Ambála, in 1861, 200,000 persons assembled, from distances extending to 1,000 miles; and there are 127 other fairs in the Punjab, at which the assemblies number 10,000 and upwards. A set of rules has been promulgated for police management, water supply, conservancy, and medical aid, during the more important fairs. In the Bombay Presidency the *jattras*, or fairs, are held in all parts of the country; and in Sind, where they are held in honour of Moslem saints, the fairs are very numerous. This custom of assembling at shrines, and of taking the opportunity of the occasion to display merchandise, prevails in all parts of India, and is of immense advantage to the commerce of the country.

Use of Exhibitions.

The exhibitions have served similar useful ends, but on a much more extensive scale, by disseminating knowledge of the products of India throughout all parts of the country, and by giving merchants and manufacturers broader and more enlightened views of their own interests, and of the interests of their customers. Mr. Baden Powell's handbooks of the manufactures and arts, and of the economic products of the Punjab, are most valuable results of the Lahore Exhibition. Dr. Forbes Watson has done much to furnish the means of obtaining an accurate knowledge of Indian wants to manufacturers in England. He has collected specimens of textile manufactures of India, in 18 volumes, of which 20 sets have

Dr. Forbes Watson's volumes of textile manufactures.

have been prepared. They may be looked upon as 20 industrial museums to promote trade operations between the East and West in this department of commerce. They exhibit tissues which suit the Indian markets, and illustrate the principles which must be observed in all attempts to introduce into them designs which will satisfy the tastes of the people. These volumes have been presented on condition of their being kept in suitable buildings, and made readily accessible to 12 of the principal centres of manufacture in Great Britain, and to seven of the cities of India.

Industrial survey of India.

Dr. Forbes Watson has also submitted an elaborate and carefully thought-out scheme for an industrial survey of India, with a statement of the measures required to make its results available to commerce. There is still a want of a really exhaustive and systematic knowledge of the various products of India. There are abundant materials for a general superficial acquaintance with the subject; but more precise and comprehensive information is required, in order to render such knowledge really useful and practical. There are 2,000 articles named in trade returns, and 7,000 more are mentioned in various works, while the list is doubtless very incomplete, and there is some confusion about almost every article. A complete collection and identification of raw produce and of manufactured goods are required; trade museums might be formed, and an industrial survey organised. Limited markets are a bar to improvements, and production on a small scale is wasteful and costly. The proposed survey, among other useful results, might promote an extension of the demand for products of all kinds, by affording to every part of India easily accessible means of information with regard to the productions of the whole country. Dr. Forbes Watson's proposals are now under the consideration of the Government of India.

X.—CONDITION OF THE PEOPLE.

Census of 1871.

THE order for taking a general census of the population of British India, and the measures that have been adopted for introducing a system of birth and death registration, show the pressing need that is felt for accurate statistics in all administrative work. Without correct information regarding the numbers of the people, there is no basis on which to found conclusions on the growth and rate of increase, on the sufficiency of food supplies, on the incidence of taxation, or on the spread of education. Such information is also necessary in order to show the health and general condition of the people, and the extent to which the rate of increase is modified by variations of seasons, conditions of water supply, and other causes. The only complete results of the census that have been received are from Bengal, in the form of a most interesting and elaborate report by Mr. Beverley, the Registrar General. In the North West Provinces, Central Provinces, Madras, Bombay, and British Burma, the details of the census operations had not yet been worked out, although the general results for Madras are given; and in the Punjab and Oudh no census was taken, because measures of the kind had been adopted so late as in 1868 and 1869.

Importance of a census.

Bengal Census Report.

Returns of census not made up in other provinces.

Inaccurate estimates in Bengal.

In the Provinces under the Administration of the Lieutenant Governor of Bengal the want of statistical information had reached an extreme point. One or two examples will show the sort of dependence that can be placed in figures that are given in previous Administration Reports. In 1870 the population of Naddea was given at 568,712, according to the "latest returns." The population, according to the census, is 1,812,795. The same Report of 1870 gave the population of Cattack at 215,835. It is really 1,449,784. The census was taken under the superintendence of Mr. Beverley, between December 1871 and March 1872. It was found impossible to make a synchronous census, or to adhere closely to all the details of the system adopted in England. All attempts to lay down any detailed scheme of operations to be adopted everywhere alike were abandoned, and plans were devised which seemed best adapted to attain the

Mr. Beverley.

Synchronous census impossible.

Principles of the census.

X. CONDITION OF THE PEOPLE.

object in different localities. The English method was adhered to as closely as possible, and departed from as little as was practicable; and in some of the more important districts, including Rájsháhi, Dacca, and Calcutta, the enumerations were taken simultaneously.

Arrangements for the census.

The plan generally adopted was as follows:—The old divisions of the country were into villages, pergunnahs, chucklas, circars, and soubahs or vice-royalties. But the judicial divisions were different, so that the limits of a collector's jurisdiction as regards revenue matters are often not conterminous with his magisterial jurisdiction. There was too much uncertainty about such boundaries, and they were unsuited for census purposes. The country is also divided into police jurisdictions, called *thannahs* (by Regulation XXII. of 1813), each with an area of about 20 square miles, and as the agency of the police was resorted to, it was found most convenient to take the census according to these *thannahs*. The first step was to cause a list of villages and hamlets in each *thannah* to be prepared. Two enumerators were then appointed for each village, who were generally the head men. Their first duty was to submit a list of houses, with the names of occupants, and the correctness of a certain number of these lists was tested by the police. The census forms were then distributed, to be filled in and returned. The municipalities were called upon to make their own census arrangements, and the hill chiefs made lists of their followers. The boat population, which was an important item, consisting of 300,000 persons in 60,000 boats, was reached by taking a census at every landing during several days, the boats being marked as they were counted to prevent their being taken twice over.

List of villages.

Enumerators.

Municipalities.

Boat population.

Feelings of the people.

The census appears to have been regarded in some districts with much suspicion by the people, who naturally believed that it was the forerunner of a new tax; and all sorts of rumours were spread abroad. One man hid his babies, on the ground that they were too young to be taxed. In Murshidabad it was believed that the authorities intended to blow the surplus population away from guns; in other places it was reported that it was to be drafted to the hills, where coolies were wanted. But generally the people patiently resigned themselves to their fate, and were counted without making any actual resistance; and they are doubtless waiting, in great suspense, for the expected consequences of the measure.

Forms for the census.

The form distributed to the enumerators had columns for the number of houses, the names of adult males in each, the number of adult females, boys, girls, and the totals, with caste, nationality, and occupation. The census was not scientifically accurate from not being simultaneous, but it was taken with great care, and the population is, if anything, under-stated. Its total cost was 21,600 *l.*, or about a farthing a head.

Results of the census.

This was the first regular enumeration of these Provinces, and the result is most surprising. Indeed, Sir G. Campbell observes that it may almost be said to revolutionise our ideas both in regard to the amount of the population and relatively in regard to its distribution in different districts, races, and religions; while by showing that the numbers vastly exceed any former computation, it wholly altered calculations with respect to the incidence of taxation, the consumption of salt, and many other matters. The total number of persons counted in the provinces under the Government of Bengal was found to be 66,856,859; of whom about 2,000,000 belong to the tributary States. The population given in the Administration Report of 1870–71 was 42,500,000; so the reality was more than half again, and all calculations based upon those figures are wrong to that extent. Half the area of the Bengal Government consists of the hilly and thinly populated tracts of Chota Nágpur, and Assam, with only 87 and 63 souls to the square mile. But the other half is one of the most densely peopled countries in the world. In Bardwán there are 573, in Patna 553, in Rájsháhi 500 souls to the square mile, as compared with 262 in the United Kingdom, and 422 taking England alone. For the whole of Bengal, in the restricted sense of that word, the number is 430, for Behar 465. But, if the unculturable or uncultivated lands at the foot of the hills, or waste and marshy, are left out, the food-producing area cannot average less than 650 souls to the square mile, or one for each half acre, crops being excluded which are not food producing. This enormous population, moreover, inhabits a country which exports

Population of Bengal.

Enormous population.

X. CONDITION OF THE PEOPLE.

exports grain, so that the supply of food is abundant in ordinary years. But the consequences of a failure of crops are terrible to think of, and the bare possibility points to the urgent importance of a perfect system of communications between all the grain-producing provinces both by sea and land.

Proportion of men to women.

The census shows that the number of men and women is nearly equal, there being 99·6 females to every 100 males; and a tendency to excess of males over females nowhere appears. In some districts the male, in others the females, preponderate.

Muhammadans. Hindus.

About two-thirds of the population are agriculturists. But the most interesting results are those which show the proportion of Hindus and Muhammadans. In Central and Eastern portions half the population is Muhammadan, while in some of the districts the latter largely preponderate. Yet it is very remarkable that this preponderance does not prevail around the old seats of Muhammadan power. In Dacca there are comparatively few, round the site of ancient Gour hardly any, at Patna only 12 per cent. of the inhabitants, and at Murshidabad the vast majority of the people is Hindu. The conclusion is that the Bengal Muhammadans are not descendants of the old conquerors, but of converts, who were low-caste Hindus, and embraced Islam to escape from their ignoble position under the Hindu system. These provinces contain 21,000,000 Muhammadans, more than in any other country in the world, and they are probably on the increase. It is asserted (but the assertion must be taken with reserve) that it is a mistake to suppose that the Hindu religion is not proselytising. Any number of outsiders, so long as they do not interfere with established castes, can form a new caste, and call themselves Hindus, and the Brahmins are always ready to receive all who submit to and pay them.

Population, North West Provinces. Population, Punjab. Population, Oudh. Population, Central Provinces. Population, Berars.

In the North West Provinces the figures of the new census give the population at 31,300,000, and the density at 374 souls to a square mile; that of the thickly-peopled district of Benares, being 797 to the square mile. There are reported to be 25,000,000 Hindus to 4,000,000 Muhammadans, the latter being divided into Syeds, and the descendants of Arab, Mogul, and Pathan conquerors. In the Punjab, too, the returns for 1872 give a population of over 17,600,000, with a density of 172 to the square mile. Here the Muhammadans largely preponderate, numbering 9,000,000, to 6,000,000 of Hindus, and 1,000,000 Sikhs. In Oudh the returns of 1869 give 11,200,000, and a density of 465 to the square mile, there being 1,000,000 Muhammadans to 10,000,000 of Hindus. In the Central Provinces a census was taken in January 1872, according to which the population amounts to 9,225,000 souls, the density being 109 to the square mile. In 1866 the population was given at 9,000,000, and 79 to the square mile. In the Berars, a portion of the Haidarabad territory, in 1867, the population was 2,230,000, and 131 to the square mile.

Population, Madras. Population, Bombay. Population, British Burma.

The census of 1872 was very carefully taken in the Madras Presidency, and the general results have been announced, although the details are not yet worked out. The houses were first enumerated, and the house to house enumeration was commenced on the 15th of July 1872, and completed by the end of the month, at a cost of 20,000 *l.* The population of the Presidency in 1872, is given at 31,300,000 souls. In 1856 it was stated to be 26,000,000. Of the four nationalities the Tamils are by far the most numerous, numbering about 16,000,000 souls, while about 8,000,000 speak Telugu, 5,000,000 Canarese, and 2,000,000 Malayalma. The wild tribes and travellers were counted for the first time in 1872. In the Bombay Presidency the returns of the census are not yet available. The old return gave 14,000,000, with a density of 94 to the square mile; the population being thickest in Ahmadabad, where there are 185 souls to the square mile. In Sind there are only 34 to the square mile; but this again probably gives a very erroneous impression, the area including a large extent of desert land. In British Burma a census was taken in 1872, but the results are not yet known. No regular census had ever been taken before, but among the returns of district officers there is a nominal roll with reference to the capitation tax, and the population in 1872 is stated to have been 2,500,000. The density is said to be 27 to a square mile in the whole of British Burma, and 53 in Pegu.

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Registration of births and deaths.

There have been attempts to introduce a regular system of registration of births and deaths in all parts of India, and much improvement has been effected in this respect; but the returns are still very unreliable. In Bengal they appear to be made by the Sanitary Commissioner, and are stated to be quite unreliable.

Registration, Bengal Government.

Registration, North West Provinces.

In the North West Provinces a new system of mortuary registration has been introduced through the agency of the village police who make reports to the regular police, and the civil surgeon is the district registrar. The great increase in reported deaths is no doubt due to more careful registration, but 19 per 1,000 must still be far below the real mortality; for the death rate in England is 22 per 1,000.

Registration, Punjab.

Great pains have been taken in the Punjab to test the accuracy of the mortuary returns, and to render them more complete, and they are said to be increasing in accuracy year by year. The rate is given at 24 per 1,000. The system of birth registration in the Punjab has only hitherto been introduced in the large towns, and Jallandar is the only district in which it has been extended to rural circles.

Registration, Oudh.

In Oudh the death returns are based on the verbal reports of the village police, and are evidently quite unreliable, for the rate is stated to be as low as 16·8 per 1,000.

Registration, Central Provinces.

In the Central Provinces the registration forms, which had been issued by the Government for all the provinces of India, were brought into use in 1870. The system is for the *kotwárs*, or village messengers, to report the births and deaths at the police stations once or twice a week, but merely from memory. There are about 52 villages to each registration station, and the returns are necessarily very imperfect, as is shown by the death rate, as in Oudh, being stated to be only 16 per 1,000.

Registration, Berar (Hyderabad Territory).

In Bérár the registration was carried on through the agency of district and municipal police, the country being mapped out into 99 rural circles, and 31 towns.

Registration, Madras.

In the Madras Presidency the system is better, but still the returns are evidently very far from the truth. An attempt has been made to record births, as well as deaths, by the village accountants. The rate of births is given at 21, and of deaths at 18 per 1,000.

Registration, Bombay.

In Bombay there is a great dearth of all statistical information, and there are no trustworthy maps. Registration was introduced in 1865, with a view to ascertain and record the mortality of each district in proportion to the population, to investigate the cause of excess in any district, and to adopt precautionary and preventive measures. It is the duty of the village officers to record the births and deaths, and report them in a given form at the mamlutdar's office, where they are tabulated. The death-rate is, again, far too low, being stated to be 19 per 1,000. It is clear that a vast number of deaths are concealed or never reported in all parts of India.

Condition of the people.

The absence of correct statistics makes it difficult to arrive at correct conclusions respecting the actual condition of the people, and the extent to which they can enjoy life. For instance, the enormous error in the estimate of the population of Bengal entirely vitiated previous calculations with reference to the consumption of salt in each family, and confidence is destroyed in any such estimates for other parts of India. The comparison between rates of wages and prices of grain is another test which is not always applicable.

Bengal ryots.

In Bengal the agricultural ryots, or small farmers, are a more numerous class in most districts, and they benefit by a rise in prices. The Calcutta Missionary Conference had dwelt on the miserable, abject condition of the Bengal ryots; and there is evidence that they suffer many things, and are often in want of absolute necessaries.

North West Provinces, ryots.

In the Punjab and the North West Provinces the people are more prosperous, though the rural towns and villages are in a very backward state, and wages are low.

Wages in the Punjab.

In the Punjab, wages range from 1 *s.* to 6 *d.* a day for skilled, and 6 *d.* to 2 *d.* a day for unskilled labour; and there has been a steady rise in the price of grain.

Wages in Oudh.

In Oudh they are only 3 *d.* for skilled and 1½ *d.* for unskilled labour a day.

Wages, Central Provinces.

In the Central Provinces skilled labour fetches 1 *s.* to 6 *d.* a day, and unskilled 3 *d.* to 1½ *d.*; while prices fluctuate and vary very much in different districts. Rice, 2 *s.* 6 *d.* a maund of 82 lbs. in Nágpur, and about 2 *s.* in Ráipur.

Wages, Mysor and Curg.

In Mysor and Curg the wages range higher, in consequence of the great demand for labour, caused by the proximity of the coffee plantations of Curg and Wynaad. Many thousands of coolies annually come up to Wynaad both from Mysor and Malabar.

Wages in Wynaad.

In 1860 the wages were three annas a day; in 1865 they received four annas (3 *d.*) a day; and now the pay of an unskilled labourer in Mysor is stated to range in some places as high as 6 *d.* a day.

day. The Mysor people, who are Canarese, live on a small dark coloured grain called *ragi*, and the natives of Malabar on rice; and the rise in the price of grain has nearly, if not quite, kept pace with the increase in wages. The Mysor people store their *ragi* in underground pits, for use in time of scarcity, where it will keep for 40 or 50 years.

Labourers on coffee plantations.

On the coffee plantations the labourers are supplied with suitable huts of split bamboo plastered with mud, and as soon as the coffee crop is picked they return to their homes in Mysor and Malabar, to look after their own crops and spend their money, returning to the plantations for the weeding during the monsoon. In the hill district of Curg the wages of skilled labour are 10*d.*, and of unskilled, $3\frac{1}{2}$ *d.* a day.

Wages, Bombay.

In the Bombay Presidency wages are much higher, from a variety of causes; a skilled labourer receives from 2 *s.* to 8 *d.*, and an unskilled labourer from about 6 *d.* to 3 *d.* a day; and the price of rice ranges from 14 *s.* to 7 *s.* a maund. Famine prices ruled in part of the Deccan towards the end of 1871. The best account of the Bombay peasantry is still, probably, that by Mr. Coats, written 50 years ago. The clothes of a man then cost about 12 shillings, and the furniture of his house about 2*l.*: and his food consists, not of rice, but of dry grains, such as *bajri* and *jowari*, with pulses and salt. The people of Mysor, and most of those in the Madras Presidency, also live on dry grains and pulses. Dr. Forbes Watson has shown the proportion in which certain Indian pulses must be eaten with dry grains, in order that the mixture may contain the same proportion of carboniferous and nitrogenous matter as is found in wheat, namely, six to one. The natives habitually combine these two classes of food in their dishes in such proportion as to give the same amount of nourishment as wheat, and thus show how wonderfully correct their immemorial experience has made them. Their weary round of labour is brightened by several festivals, and by annual pilgrimages at the temples.

Bombay peasantry.

Morality.

As to the morals of the people, whatever may be said of the larger towns, the residents of villages are no better and no worse than the same classes elsewhere; singularly temperate, as a rule; chaste, honest, peaceful, singularly docile, easily governed, and patient. Of course there is great variety of temperament and character, as there is of physical appearance in the different latitudes over which British India extends.

Diseases in India.

The climate and sanitary condition of India give rise to pestilences which periodically carry desolation over the country, while disease in its worst forms is never absent.

Hospitals.

Hospitals, richly endowed and admirably regulated, supported as well by Government as by private munificence, exist in all the large towns; and great efforts are constantly made to bring the benefits of medical skill and knowledge within reach of the poorer classes.

Dispensaries in Bengal.

In Bengal there are 160 dispensaries scattered over the country; and certain medicines have also been supplied to villages for sale at cost price.

Dispensaries in the North West Provinces.

In the North West Provinces there are 90 civil hospitals where patients are received for treatment, and 41 dispensaries where medicines are given out, and patients advised. The dispensaries are managed on the principle of grants in aid. When the people of any place erect a suitable building at their own cost, and guarantee a fixed subscription, the medical staff is granted and paid by the Government. The dispensaries are also made use of for training medical pupils, who are passed on to the medical college at Agra. At Bareli and Naini Tal, women are regularly trained in medical and surgical science; and one or two have set up successfully as private practitioners.

Dispensaries, Punjab.

In the Punjab there are 110 hospitals and dispensaries, being one to every 160,000 persons. The grant-in-aid system of the North West Provinces was introduced in 1866, and since then the number of dispensaries has been increased by 41. The Mayo Hospital, connected with the Lahor Medical School, was completed in March 1872, with accommodation for 114 patients. A system prevails in several districts of the Punjab of furnishing medical aid to the people through the instrumentality of native *Hukims*, whose sons are now frequently educated at the Lahor Medical School, and then sent back to their own districts for employment by the local authorities. The Hukimi system in the Punjab is the utilisation of native doctors in times of epidemics, by giving them elementary

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instruction, medicines, and pay. In Oudh there are 26 Government dispensaries and one private. The number of such institutions in the Central Provinces during the year under review was 92, of which 76 are partly supported by Government aid, by the appointment of a native medical officer, and the supply of medicines; all other charges being met by local subscriptions. In the Madras Presidency the dispensaries are numerous and work well; and the demand for additional establishments of the same kind are received from many quarters. They are held in high estimation by the people, who are generally willing to support them by direct taxation. In Bombay there are 121 dispensaries in the different districts, 30 attached to civil hospitals, 30 wholly supported by Government, one self-supporting, and 60 called charitable dispensaries.

Dispensaries, Oudh.

Dispensaries, Central Provinces.

Dispensaries, Madras.

Dispensaries, Bombay.

Sanitation.

Much of the disease in India is due to bad water and bad drainage; and, as regards rural towns and villages, improvements must mainly be the work of the people themselves. Works of this kind have been undertaken with excellent results, as regards the large towns. The new water supply has had a very marked influence in improving the health of the city of Calcutta, and a similar result may confidently be expected from the works at Madras. The great drainage scheme at Cawnpúr is also progressing. A very important sanitary question has long been under consideration, with reference to the effect of irrigation canals on the health of the districts through which they pass. As long as in 1847 it was found that an extensive epidemic influence had pervaded a large portion of the North West Provinces of late years, and that disease was more prevalent and severe in canal irrigated districts. A committee reported on the subject, suggesting that irrigation might be stopped at a distance of 200 yards from the village sites, and a double row of trees planted round the unirrigated space; and that shallow pools about villages should be drained, when the soil is stiff and clayey. Salubrity depends, in a great measure, on the nature of the soil and the efficiency of surface drainage. It was found that the percolation of water caused an efflorescence of soda to rise up on the surface of the land, causing not only destruction of the fertility of the soil, but sterility of women and cattle; in certain localities all the inhabitants of villages were found to have enlarged spleens from the continuance of fever. At present there are several water-logged tracts in Saháranpur and Muzaffarnagar, where the people are fever stricken. Canal irrigation is to be restricted where the spring level is near the surface, and the cuts are to be deepened, which are now unequal to carry off natural drainage. Meanwhile, special medical aid is given, and native doctors have been sent round to dispense quinine from village to village. In the Madras Presidency an opinion prevails that no connection has been proved between canal irrigation and the increase of fever; for the disease affects districts quite irrespective of wet or dry cultivation.

Water supply of Calcutta and Madras.

Drainage at Cawnpur.

Effect of irrigation canals on health.

Water-logged lands in Saháranpur.

Effects of canals on health in Madras.

Fevers.

Fever is by far the most prolific cause of death in India, carrying off, except in exceptional years when cholera is raging, very many more than all other diseases and accidents put together. The returns, exclusive of Bengal and the North West Provinces, and Burma, give upwards of 900,000 deaths from fever in 1871, so that the total number in all India cannot be far short of a million and a-half. At least half these lives might be saved if we could put quinine retail into every native druggist's shop at 1 rupee per ounce. It is the only real remedy, and the people believe in it, and are ready and anxious to take it. The vast importance of the introduction of chinchona cultivation into India cannot, therefore, be over-estimated; and there is now every prospect of being able to manufacture the febrifuge alkaloids at the plantations at a cheap rate, and of thus conferring a priceless boon on the people. Never was it more needed than now, when fevers are breaking out, in some localities, with unprecedented virulence. The fever which ravaged Bardwán in 1869 was not got under until early in 1870, leaving the people exhausted in body and means. In July 1871 it again broke out, in the same district, with renewed violence. Five dispensaries were opened in the town of Bardwán, and 20 in the district, to which the Maharajah contributed 5,000 *l.*, and at the close of the year there were 50 dispensaries and 12 food relief depôts. A grant was made of 10,000 *l.* from Imperial funds in aid of operations for medical relief; quinine was supplied, native doctors were sent to the district, and 40,000 patients received medical aid. The Bardwán fever is attributed to the bad effects of the silting up of the natural drainage channels

Deaths from fevers.

Importance of cheap supplies of quinine.

Bardwán fever.

nels of the country. Malarious fever also prevailed in the tracts that had been inundated in Murshidabad and Rájsháhi, but otherwise Bengal was comparatively free from epidemic disease. In the Madras Presidency there was a great increase of deaths from fever, as compared with the returns in the three previous years; and it is suggested that there is a great epidemic wave of malaria passing over the peninsula from north to south, decreasing in the Northern Sarkárs, and increasing in the extreme south.

Fevers in Madras.

There was very little cholera in the north of India during the year under review; and, though the death-rate from that scourge was heavier in Madras, the Presidency was nearly free from cholera by the end of 1871. But there are indications of a new wave of the disease in the north, and warnings have been given of its possible approach, to the municipalities.

Cholera.

Small-pox, as a preventible disease, has decreased steadily, but with repeated reactions, since the introduction of vaccination, and vigorous efforts are being made throughout India to promote the spread of the protective check upon the ravages of the disease. Nearly two million persons were vaccinated during the year under review in the different Provinces of India. In the North West Provinces vaccination made steady and continued progress; the number of vaccinators was increased to 270, and the operations were 10 per cent. more numerous. The Lieutenant Governor looks to a steady increase until the vaccinating establishment is strong enough to afford complete protection from small-pox to the whole infant population. In the Bombay Presidency important changes have been effected in the vaccination department, which were introduced in August 1871. Each talúk is to be provided with an itinerant vaccinator, paid from local funds, and each collectorate is to have a superintendent of vaccination. In the Madras districts, especially in South Canara, the small-pox has broken out with some violence, the deaths from it being double what they were in the previous year, the small-pox increasing with the decline of cholera. It has been observed that these two pestilences run in cycles, the one breaking out afresh as the other declines.

Small-pox.

Vaccination.

North West Provinces: progress of vaccination.

Vaccination in Bombay.

Mortality is fearfully aggravated by the passion of the people for pilgrimages. All ages and sexes traverse vast areas, and die by hundreds on the route. Dr. Hunter's book on Orissa has made an awful disclosure, and it is not easy to say what remedy the Government can devise. The Muhammadans go in numbers to Mecca, Kerbela, and Jerusalem, and many never return.

Pilgrimages

One extraordinary feature of Indian life is the number of human beings destroyed by wild beasts. Rewards are offered by the Government for the killing of these animals; but in some districts the loss of life is very great, and in others, where it is less excessive, the reason given is that goats are very abundant, and that wolves prefer kids when they can get them. Deaths by snake bites are very frequent, no fewer than 14,529 persons having lost their lives in that way in 1869, while in 1871 the total deaths caused by dangerous animals of all classes amounted to 18,078. Dr. Fayrer is of opinion that if systematic returns were kept, the annual number of deaths from snake bites (exclusive of all doubtful cases) would be found to exceed 20,000. The inhabitants of the border lands between jungle and cultivation are killed and eaten by tigers in such numbers as to require the immediate and serious attention of Government both in India and in England. The following are a few out of many instances: "A single tigress caused the destruction of 13 villages, and 256 square miles of country were thrown out of cultivation." "Wild beasts frequently obstruct Government survey parties. In 1869 one tigress killed 127 people, and stopped a public road for many weeks." "In January 1868, a panther broke into the town of Chicola, and attacked without the slightest provocation, the owner of a field. Four persons were dangerously wounded, and one died." "Man-eating tigers are causing great loss of life along the whole range of the Nallai Mallai Forest. There are five of them. One is said to have destroyed 100 people." "Writing from Nuydunka, 1869, a gentleman says one tigress, in 1867-8-9, killed respectively 27, 34, and 47; total, 108 people. This same tiger killed a father, mother, and three children; and the week before she was shot she killed seven people." "In Lower Bengal alone, in a period of six years, were killed by wild beasts, 13,401. In South Canara in July 1867, 40 human beings were killed by wild beasts." The Chief Commissioner of the Central Provinces in his reports shows the following terrible returns of human

Destruction by wild beasts.

Snake bites.

Destruction by wild beasts.

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beings killed by tigers: In 1866-67, 372; 1867-68, 289; 1868-69, 285; total for three years, 946. It appears that there are difficulties in the way of killing down these tigers. First, the superstition of the natives, who regard the "man-eating tiger" as a kind of incarnate and spiteful divinity, whom it is dangerous to offend; secondly, the failures of Government rewards; thirdly, the desire of a few in India actually to preserve tigers as game, to be shot with the rifle as a matter of sport. Mr. Frank Buckland suggests an organised destruction of the tiger cubs in the breeding season, and the attraction of full-grown tigers to traps, pit-falls, and other devices, by means of a drug of valerian, of which tigers (which are only gigantic cats) are exceedingly fond.

Emigration.

The dense population of the Provinces under the Bengal Government represents a state of things in which the number of inhabitants might at any time begin to press on the means of subsistence, and emigration, when efficiently watched and regulated, is certainly a good thing. Movements of this kind are sure to take place from one Province to another within British India whenever there is a great demand for labour on the one hand, and a crowded population on the other. Thus the tea planters of Asam, Cachar, and Silhet, have attracted a great number of coolies from the valley of the Ganges. The total number of such emigrants now employed in the tea districts is 39,904, and in 1871 the number despatched thither was 7,022, against 4,863 in the previous year. The mortality in the passage up the rivers has been excessive, but the condition of the coolies on the tea estates is, on the whole, satisfactory, large numbers of time-expired labourers showing that they are contented with their bargain, by remaining. A special law has been passed by the Bengal Government to regulate this. The wages are five rupees to six rupees a month, and strict rules are enforced respecting the provision of lines or quarters of medical aid, and of food for the coolies.

Emigration to tea districts.

Emigration to Straits Settlements.

But beyond the limits of British India there is a constant movement, and there is also emigration from Tanjore to the Straits Settlements.

Emigration to Ceylon.

In the south of India a great annual emigration has long gone on from Tinnevelly and other Madras districts to Ceylon, for the coffee-picking season; and satisfactory arrangements have been made by the Colonial Government for their protection. But these Tamil emigrants usually return to their homes in India when the season is over, or after a stay of two or three years. The Government of Ceylon has recently passed an Ordinance to provide for the medical wants of these coolies on the coffee estates. It enables districts to make their own arrangements to supply their medical wants, and it empowers planters to appoint a committee to make regulations for the medical service of their district, subject to the approval of the Government. But if any district fails to make the necessary arrangements, power is given to the Government to step in and take the management into its own hands, imposing an assessment not exceeding one rupee per acre in cultivation. There are 254 vessels engaged in the native passenger trade between Tutikorin and Ceylon during the year 1871-72. The number of Tamil people from Southern India that embarked for Ceylon was 14,625; while, in the same year 13,007 returned to their homes.

Medical aid for emigrants to Ceylon.

Passenger traffic from India to Ceylon.

Emigration to Wynaad and British Burmah.

Emigration from and to British Burma.

In the same way the labourers of Mysor and Malabar annually go to the coffee estates on the hills of Curg and Wynaad. In British Burma there were 75,690 emigrants and 97,679 immigrants in 1871-72. The immigrants are mostly coolies from India, who come for the high wages at the rice and saw mills, and return with the money they have saved. Many also come from Upper Burma, for employment on the embankment works.

Distant emigration

But emigration to distant colonies is not altogether a natural process, is not caused by the spontaneous action of the people, but is brought about to a considerable extent by the persuasion of agents and recruiters. It therefore requires very close supervision on the part of the authorities in India; and accordingly the Indian Emigration Act (VII. of 1871) was passed for the protection of the coolies, and is a consolidation of all previous laws.

Emigration Act.

Emigration agents.

Protectors of emigrants.

It was provided that the Government of any place to which emigration is lawful, might appoint a person to act as Emigration Agent at Calcutta, Madras, and Bombay, subject to the approval of the local Government; and each local Government is to appoint a proper person to act as protector of emigrants, who

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is not to hold any other office. The duties of the protectors are to inspect vessels, inquire into the treatment of returned emigrants, to report, aid, and advise. The local Governments are also to appoint medical inspectors of emigrants. A suitable depôt for persons engaged as labourers is to be established by the agents at each port to be licensed, after inspection by the protector and medical inspector, but no license is to be in force for more than a year. Emigrants in the depôts are to be inspected at least once every week. Recruiters of labourers, who are to wear a badge, must be licensed by the protectors, and none may engage men without licenses. Contracts may be made with natives of India to Mauritius, Jamaica, British Guiana, Trinidad, St. Lucia, St. Vincent, Grenada, Natal, St. Kitts, Seychelles, so far British Colonies; French Guiana, Réunion, Martinique, Guadaloupe, foreign territory; Dutch Guiana, and St. Croix; and the Governor General may, from time to time, declare emigration lawful to any other place. This Act, however, was almost entirely a consolidating measure. All the more important parts of the system had been long in force.

Medical inspectors of emigrants.

Depôts.

Recruiters of emigrants.

Places approved for emigration.

Every recruited emigrant must appear with the recruiter before the magistrate of his district, who is to see that he understands his engagement, and is willing to fulfil it. The magistrate is then to register the name, age, and village of the emigrant in a book, with the depôt to which he is proceeding, the rate of wages and period of service agreed upon; and copies are to be forwarded to the emigration agent and to the protector at the port. The emigrant is to be conveyed to the depôt, and the recruiter is bound to provide him suitable lodging and food on the journey, and to report his arrival. No vessel may take emigrants without a license from the local Government, stating her tonnage, and the number of men, women, and children she may carry, and the protector is to cause each vessel to be carefully surveyed. The height between decks is not to be less than 5½ feet; one adult for every 12 superficial feet of deck, and for every cubic space of 72 feet; women and children are to be apart from men, and there must be proper supplies of fuel, provisions, and water, a double blanket for each emigrant outside the tropics, a distinct place fitted up for a hospital, and a surgeon on board. No emigrant may be forced to embark, but he will incur liabilities for breach of contract. Steamers may sail at any time. Sailing ships may also leave for places east of the Cape at all times of the year, but for places west of the Cape only between the 31st of July and the 1st of March.

Rules for recruiting.

Emigrant ships.

A convention with the French Government was made in July 1861, by which emigrants were to be allowed to be embarked for Réunion, Martinique, Guadaloupe, and French Guiana, at which places the British Government was to appoint agents; and the rules for recruiting are to be the same as those enforced for the British Colonies. The contracts are not to be for more than five years. The work is not to exceed 9½ hours a day for six days out of the seven. Wages and rations are to be fixed. Medical treatment is to be gratuitous; and return passages are to be provided at the expense of the French Government. The proportion of women to men in each ship is to be one quarter. A similar Convention has since been made with the Netherlands Government for emigrants to Surinam.

French Emigration Convention.

Dutch Emigration Convention.

In 1870–71 the West India Colonies applied for 9,423 emigrants, and 7,315 were dispatched; but there was great difficulty in getting the quota of 40 females to 100 males. In 1871–72, the number of emigrants who left Calcutta was 8,231, and the rule as to the proportion of females was fully complied with. The number returning was 3,383, in 11 ships; and the death-rate, either going or coming, never exceeded two per cent.

Number of emigrants from Calcutta.

Owing to the want of supervision in the selection of recruiters, the Lieutenant Governor of Bengal ordered that no license should be given to any recruiter whose character was not known to the protector, or regarding whom the magistrate of his district did not report favourably. The emigration agents remonstrated against this order, as tending to cause delay; and on the ground that magistrates, opposed to emigration, would refuse to sign recruiters' licenses; but the magistrates were cautioned not to throw obstacles in the way. Another ground of complaint was, that the Lieutenant Governor of Bengal had issued a Circular (No. 74, 2nd December 1871), desiring the magistrates to explain to the emigrants that there was no binding contract as to the rate of wages in the Colonies, and that this column in the agreement must be left blank. The Jamaica

Rules as to licenses for recruiters.

Warning as to wages by the Lieutenant Governor of Bengal.

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agent complained that illegal obstacles had been thrown in the way of the recruiters; and, in fact, a mistake seems to have been made by the Bengal Government, through not having being furnished with recent information on the subject of colonial legislation. In 1869, Sir J. P. Grant, the Governor of Jamaica, had made important arrangements by which the coolies are efficiently protected and cared for, and a minimum wage of 1*s.* a day for men, and 9*d.* a day for women and boys, was enforced. Hospitals had been provided by the Government at the cost of the immigration fund; medical men appointed by the Governor, or being paid out of the same source, instead of by the employer, as formerly. British Guiana and Trinidad have also guaranteed a minimum wage of 1*s.* 0½*d.* a-day. On learning these facts, Mr. Campbell withdrew the Circular, and now gives every facility to emigration. During 1871–72 four vessels left Madras for the Mauritius, with 1,114 emigrants, the due proportion of women being maintained; but none sailed for the French, or for any of the other English colonies. Five vessels arrived from Mauritius, two from Natal, with 793 and 335 returned emigrants respectively. But several emigrant ships sailed from Pondicherry and Karical. Two left for Guadaloupe with 938 coolies, one for Martinique with 443, and one for Réunion with 358; altogether 1,639; a decrease of 620 from 1871. Six vessels arrived from Réunion with 339 returned emigrants, and one from Guadaloupe with 329. The French ship "Souvenance" sailed from Pondicherry with 376 coolies for Martinique, and was lost off the Cape of Good Hope, with all on board. There has been no emigration for many years from Bombay; but in 1871 two ships brought back 250 and 25 returned emigrants respectively.

Laws respecting wages passed in the Colonies.

Emigration from Madras.

Emigration from Pondicherry.

Returned emigrants, Bombay.

Condition of emigrants.

The Indian emigrants appear, as a rule, to improve their condition by their service in the West Indies. From 1861 to 1871 there were 34,463 emigrants from India to British Guiana; and in 1871 the Indians in the Colony numbered 48,363, or 15,763 more than the number introduced. During the same period Trinidad received 19,538; and in 1871 there were 27,425 in that Colony. In Mauritius there were 217,091 in the same year. But the best criterion for judging of the emigration is by the number and circumstances of the returned labourers. Since 1869 as many as 3,367 have returned to India from British Guiana and Trinidad, with 127,861 *l.*, or about 30*l.* a piece.

Returned emigrants.

There is a constant immigration of Chinese into India, but the male sex only come, and do not seek a permanent domicile. The immigration of Arabs into India to recruit the military service of the Nizam of Haidarabad has been interdicted; but there is a large domiciled settlement of Arabs in the Nizam's territory. The immigration from Eastern Africa requires further elucidation. No slave can be imported into British India, but there is a large influx of Africans connected with the mercantile marine. From beyond the north-west frontier of India, and the hills of Afghanistan, there is a steady annual influx and reflux of merchant and camel drivers. From the same direction aliens of the wild tribes beyond the Indus descend in thousands to seek service in the native British army, or private employment, and form an element in the floating population of the towns.

XI.—POLICE AND JUSTICE.

Police.

The work of preserving the peace of the country, suppressing and detecting crime, and executing decrees in British India, is performed by a body of about 190,000 police constables; aided by the village chaukidars and watchmen, who have continued to occupy their immemorial positions, in most parts of the country, as a supplement, and often a very important one, to the regular police force.

Bengal police.

In Bengal, besides 22,000 regular district policemen, there are 6,600 municipal, 2,500 Calcutta suburban, 800 river, and 600 railway police. Their drill is said to be unsatisfactory, for the Bengali, though well adapted for the work of detecting crime, is almost useless as a guard. It is suggested that the force should be recruited from among the bolder and sturdier men of Bahar. The work of the Bengal police in 1871–72, as regards criminal prosecutions, is represented by 72,817 arrests, out of which 36,813 convictions were obtained; but of 312 murders only 139 were detected. The worst cases of gang robbery, and the most numerous, were in the districts of Báckarganj and Purniah. But in addition to the regular police force, there are some 200,000 chaukidars or village watchmen in Bengal. The enrolled constabulary have many duties to perform in addition to the detection of crime and preservation of order. They are used as guards and orderlies, on frontier duty in the hills, as revenue preventive officers, serving writs, and summonses, and last year in carrying out the census operations. They are liable to be employed on any miscellaneous executive work, so that much, if not most of police work falls upon the village watchmen, whose proceedings are not included in the police reports. Under the Chaukidari Act they are under the control of a *punchâyat*, selected from the inhabitants of the villages; and some particulars respecting the work they perform and their organization would be a very important addition to the Reports.

Bengal chaukidars.

Criminal justice in Bengal.

In the administration of criminal justice, the high court disposes of appeals, and has cognizance of all capital sentences, of which 66 were carried into execution in Bengal during the year under review. The courts of session, aided by juries or assessors, try cases committed by magistrates. The magistrates have power to imprison for two years, and inflict fines up to 100 *l.*, and subordinate magistrates can commit for six months, and inflict fines up to 20 *l.*, and whippings. During 1871-72 juries were employed in 437 and assessors in 1,182 cases coming before the sessions courts. Before the high court 100 cases were tried by juries. Of the criminals, nearly 37 per cent. are Muhammadans, eight per cent. Hindu cultivators, and six per cent. Brahmins.

Use of juries and assessors.

Caste of criminals.

Police in the North West Provinces.

In the North West Provinces the police force is recruited from all castes, the Muhammadans, and Brahmins, and Rájputs being in nearly equal numbers, about 5,000 of each, the Muhammadans slightly preponderating. During the year under review, the criminal classes have remained stationary, while the police are said to have improved the time, and to have made a decided advance. They obtained 39,641 convictions out of 51,049 trials; and of 301 murder cases 155 ended in conviction. The village police in the North West Provinces have been re-constituted; hitherto they have generally been paid by grants of inferior land as jagheers, and sometimes in grain or money. They now receive regular wages of 3 rupees a month, in addition to their ancestral perquisites, paid by the cultivators from the threshing-floors. The Chaukidars are also housed and uniformly clothed, and a great improvement is reported to have been effected in their efficiency.

Village police.

Special duty of police.

Two duties of special interest are entrusted to the police of the North West Provinces, namely the supervision of the hereditary thieves, and the suppression of infanticide.

Hereditary thieving tribes.

Various tribes in the Punjab, the North West Provinces, and Oudh carry on theft and robbery systematically. They live quietly for part of the year in their own districts, and spend the rest in wandering about the country to rob and plunder, the gains being divided according to a fixed rule. In the North West Provinces there are 29 tribes which support themselves in this way. In October

XI. POLICE AND JUSTICE.

Legislation with reference to thieving tribes.

Colonies of thieves.

1871, an Act was passed (XXVII. of 1871), empowering the Government to declare a tribe criminal; a register is then to be made of its members. The criminal tribes may be removed and formed into reformatory settlements, and any member of them found beyond prescribed limits may be arrested. Under the provisions of this Act, two colonies have been formed in the North West Provinces, one of a tribe called *Bowrias*, in Muzaffarnagar, and another of *Bhudduks*, in Ghurukpur. Land is given to them at low rates, and every inducement is held out to them to lead an honest life, while every member is placed under rigorous police supervision.

Infanticide.

Test of guilt as regards infanticide.

Measures of repression.

Villages proclaimed as tainted with infanticide.

Success of measures for suppressing infanticide.

The measures for the suppression of infanticide are enforced under the provisions of Act VIII. of 1870, by means of the police acting under rules published in March 1871. The crime of infanticide can be put down by accurate registration of all domestic events among proclaimed families, combined with frequent inspections of female infants by the village police. It is held that where the number of girls is less than 40 per cent. that of the whole number of children there must be foul play, and a suspicion of guilt becomes justifiable. The census returns have been utilized for the purpose of detecting the low per-centages of girls among the suspected tribes of Rájputs and Jats. The head of a proclaimed family is obliged to report all births and deaths to the police, and, if foul play is suspected, the bodies are forwarded to the civil surgeons for post-mortem examination. The police officers visit proclaimed villages once a month, and compare the actual numbers in each family with their registers, annual reports being furnished to the magistrates. As many as 3,707 villages, in different districts, have already been proclaimed as having their per-centage of girls below the prescribed limit; and the rules of repression have been applied. The crime of infanticide is unknown in five of the North West Provinces (Dehra, Kamaun, Garhwal, Goruckpur, and Lullutpur), but in others it is very prevalent among different classes of Rájputs and Jats. Much good has already been done, girls are beginning to survive in numbers which accord with the laws of nature, the people are, it is believed, becoming ashamed of the crime, and seem to be glad of an excuse to drop it. The power of imposing the cost of repression of the guilty tribes has been very sparingly used, but where an extra force of police is required, a cess has been imposed of eight annas a year on every house. Although the tax is so small, it is most unwelcome, and acts as a further stimulus to the people to abandon their ancestral crime. There have been very few convictions, but the Act is intended rather to prevent crime than to create evidence.

Causes of infanticide.

The causes that give rise to the crime of infanticide are very obscure. It has been ascribed to ancestral pride and to poverty; but on the one hand, it is practised by the poor and base-born castes, and, on the other, by the rich and well-to-do Rájputs and Jats. Moreover, the Jats and Tugas receive, and do not pay, dowries on the marriage of their daughters, yet they also practise infanticide. Possibly the crime is mainly attributable to hereditary custom and habit, in which case its total eradication will not be difficult, now that active measures have been adopted.

Punjab police.

Increase of crime in the Punjab.

Murders in the Punjab.

Oudh police.

Central Provinces police.

In the Punjab, under Act V. of 1861, the police force is divided into Trans and Cis-Sátlej divisions, the whole numbering 20,070 men; of whom 53 per cent. are Muhammadans, 29 Hindus, and 17 Sikhs. There has been a serious increase of crime, which is partly attributed to deterioration in the working of the police. The conduct of the men was, however, satisfactory; 8,512 are armed with muskets, 10,928 with swords, and 453 with batons only. Of the murders, 25 per cent. were committed in the Peshâwar district alone, and out of 93 only 11 were convicted. The total number of murders in the Punjab was 366, sentences of death were passed in 105 cases, and 81 were confirmed. In Oudh and the Central Provinces the police force has been organised under Act V. of 1861, and its strength, under these two Governments, is 5,888 and 7,352 respectively, exclusive of municipal and railway police.

Bombay police.

Cost of police

In the Bombay Presidency the new police system consists in the creation of a distinct and complete executive for police purposes, the Police Commissioner in each division being also the Revenue Commissioner. The pay of a constable is fixed at seven or eight rupees a month, and he cannot receive promotion unless he can read and write. The railway police was organised by the Government in 1866. By Act II. of 1871 the Government is enabled to call upon municipalities

palities to contribute to the cost of the police to the extent of one half, but this power has as yet only been put in force at Súrat and Ahmadabad. Crimes are increasing, and convictions bear a small proportion to them; out of 186 murders, there were only 66 capital sentences.

Increase of crime in Bombay.

The village police, under the control of the magistrates, is composed of the old mahars or watchmen in the ancient village system of the Mahrattas. The mahar was the 10th in order of the Bara Balúta, or body of village officials, of whom the Patel is first, and has supervision of all revenue and police matters. The mahar is immediately under the patel, or head man of the village; and the ancient mode of remunerating him was by a grant of rent-free land. The reform of the village police is now under consideration, with a view to introducing a better and more adequate system of remuneration, such as has been adopted in the North West Provinces. The duties of village policemen are to keep order, to report crime, and to assist the regular police.

Bombay village police.

Reform of village police.

Two bodies of police are still maintained in the Bombay Presidency with semi-military organization, namely, the Khandesh Bhíl Corps of 840, and the Gujrát Bhíl Corps of 503 men. The Bhíls were the aborigines of Khandesh, a fierce mountain tribe, dwelling among steep rocks and pestilential jungles, whose profession was robbery. They were the object of mingled terror, contempt, and detestation to the people of the plains, and in their sudden forays they spared neither age nor sex. In 1818 Khandesh was ceded to Great Britain, and in 1826 Mountstuart Elphinstone conceived the idea of establishing the Bhíls in agricultural colonies, and organizing a Bhíl regiment. The agricultural colonies were confided to Captain Ovens; to Lieutenant Outram was assigned the dangerous task of disciplining these lawless barbarians, while Mr. Willoughby established peace and order among the wild Bhíls of Rajpeepla. Outram commenced by attacking the Bhíls in their fastnesses, at the head of a small detachment, and compelled them to sue for mercy. Having convinced them that their rocky defiles were not impregnable, he sent back his troops, and, throwing himself among his recent foes, unarmed and unattended, he claimed and received a reciprocity of the confidence thus reposed in them. He accepted their hospitality, listened to their wild legends, taught them many simple mechanical devices, dressed their wounds, prescribed for their ailments, accompanied them in the pursuit of tigers, and won their admiration by showing his superiority in those very qualities which they most valued in themselves. In less than a year he had formed a Bhíl corps which, when Outram gave over its command in 1835, consisted of 600 well-disciplined men. The two Bhíl corps are still continued, to maintain the peace of the country, and give employment to a naturally restless people.

Bhíls corps.

Lieutenant Outram and the Bhíls.

In the Madras Presidency the police force consists of 21,836 men, besides the village watchers; but, as in Bengal, the regular policemen are also employed on the salt preventive and excise establishments, and as gaol guards. In Burma there are 5,634 Imperial and 579 muncipal policemen, and here at last a decrease in the number of murders is reported.

Madras police.

Burmese police.

Since the introduction of railroads, the formation of numerous plantations under European management, and the increase in facilities of communication, a new class has sprung up, which has caused some anxiety. European vagrants or "mean whites" have begun to spread over the country, and are increasing in numbers. A Vagrancy Act was passed in 1869 (Act XXI. of 1869), which was intended to grapple with this evil, and it has been acted upon in all three Presidencies. Government workhouses have been established at Calcutta, Madras, and Bombay. In Calcutta the workhouse is in the Presidency gaol. In 1871-72 the number of vagrants arrested and transported, under the provisions of the Act, in Bengal, was 67. In Madras the Vagrancy Act is stated to have put down begging in the towns; but it has created a class of voluntary vagrants who go to the Government workhouse on their own represen tations, where they are clothed and fed. The cost connected with them, in 1871-72, was 2,094 *l.*, including passage-money for those who were deported. There were 95 cases in the year, of whom 85 were shipped off, 19 being grooms, eight soldiers, five engine drivers, four sailors, and the rest miscellaneous vagrants. In April 1871, a shed was erected in the new house of correction at Bombay, to serve as the Government workhouse; and in 1871-72 as many as 150 vagrants were admitted. A dozen were arrested up country, along the lines of railway,

European vagrants.

Vagrancy Act.

Bengal vagrancy.

Madras vagrancy.

Bombay vagrants.

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and the rest in the town of Bombay. They were nearly all strong healthy men, able to work; and the cost of feeding and clothing them was 440 *l.* The daily average of workhouse inmates at Bombay was 43 for the year.

Reported importation of slaves at Calcutta.

It was reported by Colonel Herbert, the Political Resident at Baghdad, that slaves were regularly imported at Calcutta by pilgrims returning from Mecca, to serve as concubines, attendants, and eunuchs; and that they were smuggled on shore in women's clothes, without creating suspicion. Inquiries were made by the police without any success, and it was reported that most of the pilgrims were poor, and not in circumstances to purchase and transport slaves. The Commissioner of Police has, however, been instructed to keep a careful watch on vessels arriving from Jeddah.

Gaols in India.

The gaols throughout India are generally in a satisfactory state, discipline is preserved, industry is enforced, and to some extent instruction is given, while much care and thought has been devoted to the sanitary arrangements. Indeed

Bengal gaols.

the Lieutenant Governor of Bengal considers that almost too much attention has been given to industrial and sanitary considerations, and that the penal effect of imprisonment has been more or less lost sight of. He thinks that the punishment of short-term prisoners is not sufficiently stinging, that the prisons are made too comfortable, while classification scarcely exists, partitions having been almost universally cleared away for the sake of ventilation. The district gaols have been placed immediately under the control of the magistrates; but there is no gaol of this class in Bengal that can be looked on as a model, or that can be recommended for imitation as based on scientific principles. Standard plans have, however, been drawn up for gaols of different classes by the new Inspector General, Mr. Heely. His predecessor, Dr. Mouat, worked a great improvement in the health, habits, and discipline of the Bengal gaols. There are seven central, and 54 districts gaols, and 87 lockups, and the number of prisoners during the years was 18,928, of whom 2,214 were flogged for breaches of gaol discipline.

Classification of gaol labour.

Gaol labour is divided into *penal*, consisting of treadmill, stone breaking, and lime and flour grinding; *hard*, including excavation work, drawing water, cutting wood, and blanket weaving; and *light*, such as tailoring, dyeing, weeding, garden work, and writing. Penal work is given to three months' prisoners during the whole time; for prisoners for 18 months during half the time; and for long term prisoners, only as a punishment. The profits from gaol industry amounted to 9,880 *l.* for 1871-72.

Gaols in the North West Provinces.

In the North West Provinces there are six central gaols for long-term prisoners, 33 district gaols, and 22 lockups. During the year under review, 58,419 prisoners were confined; and 24 per cent. were employed on manufactures. The profits amounted to 7,026 *l.* The cost of the gaols was 68,000 *l.* In September

Outbreak at Bareli Gaol.

1871 there was a daring outbreak at Bareli Gaol, caused by disturbed feelings among the Brahmins who had been ordered to remove their *janeo* threads, which was worked upon by Muhammadan prisoners, until they gained over their discontented comrades to a project of forcing the gaol. They armed themselves with portions of the weaving looms which were heaped up in the yard, and were actually escaping over the outer wall, when the police opened a cross fire upon them from both sides.

Punjab gaols.

In the Punjab there are 34 gaols, of which six are central and divisional, and the remaining 28 district gaols. The number of prisoners confined was 42,160, but the daily average only came up to 13,443; of whom 4,308, were flogged for

Gaol industry.

breaches of gaol discipline. The profits from gaol industry amounted to 32,000 *l.*, but this is made to include value of labour, not only on public works but also

Ticket-of-leave system.

in the performance of gaol duties. The expenditure was 76,800 *l.* A ticket-of leave system has been introduced, by which prisoners who have served three-fourths of their time are selected, on account of good conduct, and admitted to special privileges of probation, eventually being all owed to return home under surveillance.

Oudh gaols.

In Oudh there are 13 gaols with a population of 16,658 prisoners, of whom 553 were flogged during the year.

Gaols in the Central Provinces.

In the Central Provinces the gaol accommodation is ample, consisting of two large central goals for long-term prisoners, and district lockups. The number of prisoners in 1871 was 9,175. They are em-

School of industry at Jabalpur.

ployed on public roads, in grinding corn, and making prison clothes, and on manufactures.

factures. The Jabalpur school of industry was established in 1837, to give employment and instruction to Thag and Dacoit prisoners and approvers, who it was desirable to keep under surveillance. It continues to perform good work as an industrial institution. The approvers, with their wives and families, numbering 2,500 souls, live in a village surrounded by a wall, while the prisoners, 50 in number, are confined in a separate gaol. The institution is famed for its tent making.

Bombay gaols.

In the Bombay Presidency, 19,784 prisoners were confined during the year 1871. This is an increase on the preceding year, but famine prices ruled in part of the Deccan, and scarcity of food always produces increase of prison population. The number of executions has steadily increased for the last five years, and there were 62 in 1871. The prison labour was worth about 28,000 *l.*; but the net profits of gaol factories was only 2,500 *l.* In the Madras Presidency the total number of gaol prisoners was 21,522, and the daily average 9,364. The total value of gaol labour was 34,000 *l.*, and the profits of the year on manufactures amounted to 12,000 *l.* The cost of the gaols was 58,600.

Madras gaols.

Gaols in Burma.

In British Burma there are two central gaols, at Rangún and Mulmein, and the average daily number of prisoners was 4,413, nearly all opium eaters or smokers. The cost was 24,000 *l.*, and the earnings 8,900 *l.*; but it is intended to introduce jute spinning and weaving into the Burma gaols. The health of most of the gaols in British India was good, and the death-rate low as compared with that of the rest of the population. The gaols in the North West Provinces and the Punjab form an exception. There was an outbreak of cholera in the Jaunpur gaol, and much sickness in some of the others. In the Ráwalpindi gaol there was great mortality arising from an epidemic of fever, and the death-rate was heavy throughout the gaols of the Punjab. In the Madras Presidency the prisoners were, as a rule, remarkably free from disease.

Health in the gaols.

Port Blair penal settlement.

The penal settlement at Port Blair, in the Andaman Islands, contained 7,569 convicts. They are under two systems: the first, which is very popular, by which they receive money payments and nothing else, except clothing; the second, by which they also have rations, and money gratuities after a certain fixed period. Over 40 marriages have taken place between male and female convicts, and 439 others have their wives with them. There are schools for the children of convicts. There is little crime in the settlement, beyond numerous cases of petty theft, and the sanitary condition of the place is satisfactory. The labour is devoted to clearing jungle, cutting up timber, and making bunds and tanks. There is an area of 900 acres under cultivation, 500 belonging to ticket-of-leave and self-supporting convicts, and 400 to the Government, the crops consisting of Indian corn, paddy, and pulses, while the "Royal Dover Garden," commenced in 1868, occupies 357 acres, covered with guinea grass, plantains, fruit and spice trees. Its profits, for 1871–72, amounted to 258 *l.* There is another penal establishment at the Nicobar Islands, where there are 227 convicts near a large swamp, which makes the place very unhealthy.

Civil suits in India.

The Lieutenant Governor of Bengal on civil suits.

In the year under review, there were 1,088,153 civil suits in India. The Lieutenant Governor of Bengal expresses a fear that the tendency to uphold doctrines of bare law, the literal enforcement of contracts alleged to have been entered into by ignorant and improvident people, lead to a hard measure in cases which affect poor men, and reduce them to slavery or drive them to despair. Every case against a poor man may be a rule to lead to the subjection of a hundred other poor men; and such a system is a great advantage to the rich and litigious. Cases are the subjects of an amount of litigious power which, Sir G. Campbell believes, is unprecedented in any other country in the world. The general use of that lawyer power, in stage after stage, process and process, appeal after appeal, and suit after suit, bred out of the execution of a decree, is enormous. People are often driven to despair. The Lieutenant Governor of Bengal tells a story of an estate being in litigation between the members of a family originally belonging to one of the hill tribes. One of the parties, after litigating through all the Courts of India, got a decree in the highest Court. But there was an appeal to the Privy Council, and the suitor's funds were exhausted. So they caught an old man, carried him to the top of a hill, and sacrificed him to propitiate the gods who rule the decisions of the Privy Council. Among the Sonthals the civil pro-

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cedure code was introduced, and worked such mischief that the position became dangerous. The people were exasperated, and they have been removed from the operation of the laws which are applicable generally in Bengal.

Civil suits in the North West Provinces.

Civil suits in Oudh.

Litigation in the Central Provinces.

In the North West Provinces, litigation reached the highest figure of any year since the mutiny, and there is also a great increase in the value contested. In Oudh the number of civil suits has doubled in four years; and the reports observe that, under our rule there is a progressive proneness to civil litigation. The sales of houses and lands bear a large proportion to the total number of processes, and in many cases there is failure to realise the amount decreed against the debtor, because he is absolutely devoid of means, already wrung dry. In the Central Provinces, litigation increases from year to year, which is considered to be a sign of the great indebtedness and poverty of the people. The suits are generally for money on written promises to pay, and on very small sums. It is the general impression that the courts are merely used for the purpose of coercing debtors to enter into new engagements on less favourable terms. The principal is never paid off, but the interest is mercilessly exacted, and the people become slaves to the money-lenders, the most wretched and degrading form of slavery. In the

Bombay litigation.

Bombay Presidency, litigation is most active in Thana and Khandesh, the majority of suits being for debts on written contracts (114,688).

Registration of deeds.

In Bengal.

Rural registration of deeds in Bengal.

Wills in Bengal.

Registration of deeds and other documents in India is of two kinds, compulsory and voluntary. To the former class belong deeds having reference to land. In Bengal, about 250,000 deeds are annually registered, but the great majority are contracts, the registration of which is compulsory; and documents which it is not obligatory to register only number about 30,000 a year. This is a mere drop in the ocean, compared to the whole transactions of the people; and the registration agency does not touch the mass of the business of the country. Sir G. Campbell proposes to appoint Muhammadans of position and learning as registrars of marriage contracts and other deeds used by that community; and he has commenced a system of rural registration. The number of wills registered in Bengal has increased from 646 to 934, a fact pointing to a revolution in the ancient property law of India, which is gradually being superseded by the English doctrine of freedom of testamentary dispositions.

Registration of deeds in the North West Provinces and Punjab.

Registration of deeds in Oudh.

Wills in Bombay.

Registration of deeds in Madras.

In the North West Provinces and the Punjab, the Tahsildars are registrars, and the registry districts are the same as those for revenue and police purposes. The number of documents registered in the Punjab was 95,746. A compulsory registration of decrees of civil courts was abolished, for which optional registration of certified copies of decrees and orders was substituted. In Oudh it has been a matter of surprise and disappointment that the registration of leases has not been more common. Only 56 wills have been registered, and not one has been deposited for custody; but this is the first year in which the experiment has been tried. In the Bombay Presidency, there has been an increase in the registration of wills from 119 in 1870 to 279 in 1871, and of authorities to adopt from 3 to 22. In the Madras Presidency, 287 registry offices; and there has been a gradual and steady growth of registration; but that of miscellaneous documents has declined. The Acts referring to registration are XX. of 1866, and VIII. of 1871.

XII.—EDUCATION.

XII. EDUCATION.

THE education of the people of India is based on the system inaugurated by the Sir Charles Wood's Despatch of the 19th July 1854, the objects of which were two-fold, to provide first-class education for the wealthier classes and instruction for the masses of the people. The main principle of the Despatch is that European knowledge should be diffused through the medium of the languages which are alone understood by the great mass of the people; that education in India should have for its object the diffusion of the improved arts, science, and philosophy of Europe very widely among the people; but that the teaching of English should always be combined with careful attention to the study of the vernacular languages. At the same time the importance of studying English was fully recognised, and there was no wish to diminish the opportunities which were afforded in special institutions for the study of Oriental literature.

The Despatch of 1854.

Its objects.

Its main principles.

With a view to attaining these objects it was first ordered that education departments should be created in every Presidency and Governorship, with inspectors to report upon the colleges and schools supported and managed by Government, to conduct the examinations and to aid the schoolmasters by their advice. This admirable machinery is now in full working order throughout India.

Education Departments to be created.

A complete scheme was then laid down for the higher education of the wealthier classes. It was declared that the time had arrived for the establishment of universities in India, conferring degrees, and based on the model of the University of London. They were not to be places of education, but to test the value of education obtained elsewhere, and to confer degrees in arts, law, medicine, and civil engineering. All colleges and schools capable of supplying a sufficiently high order of instruction for candidates at the university examinations, were ordered to be affiliated to universities which were to be established at Calcutta, Bombay and Madras. At that time there were five Government colleges in Bengal, besides the Sanscrit College and Muhammadan Madrasa at Calcutta; five in the North West Provinces, including the Rurki Civil Engineering College; the Elphinstone Institution, Púna College, and Grant Medical College in Bombay, and the High School at Madras, besides certain missionary schools. These were named in the Despatch as adapted to become affiliated colleges of the universities. Below them the zillah, or middle class schools, were to prepare for the colleges and for the entrance examinations at the universities. The system was to be tied together, and, as it were, rendered homogeneous, by attaching scholarships, leading the best pupils up from the zillah schools to the colleges, and thence to university degrees. With the object of combining with the agency of the Government the aid which could be derived from the exertions and liberality of private persons or societies, a system of grants-in-aid was adopted, in order to bring all private schools within the scheme. It was hoped that far more rapid progress would follow from thus encouraging private efforts, while fostering a spirit of self-reliance, itself of no mean importance to the well-being of a nation. The grant-in-aid system was to be based on entire abstinence from interference with religious instruction conveyed in the assisted schools; and this principle has led to considerable assistance and encouragement being given to missionary schools of all denominations.

Higher education.

Universities.

Affiliation of schools and colleges to the Universities.

High schools existing in 1854.

Zillah schools.

Scholarships.

Grants in aid.

This was the scheme for securing the first object laid down in the despatch. But it was intimated that as regards the upper classes the Government should not go further, and that an artificial stimulus should no longer be necessary to create a demand for such an education as is conveyed in Government colleges. These colleges and the universities were as much as the Government could do, to place the benefits of education practically before the higher classes. Indeed the despatch went further, and looked forward to the time when any general system of education, entirely provided by Government, might be discontinued with the gradual advance of the system of grants-in-aid; and when the existing Government schools and colleges, especially those of the higher order, might be closed or transferred to the management of local bodies aided by the State.

Limit of Government aid for higher education.

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EDUCATION.

This would have the effect of placing the highest class of education almost entirely in the hands of the missionaries.

Education of the masses.

The second object of the Despatch was considered still more important. It was to convey useful knowledge, suited to every station in life, to the great mass of the people who cannot possibly obtain it by their own unaided efforts. The Government of India was desired to take active measures in future, with this object in view, for the attainment of which a considerable increase of expenditure would be sanctioned. There should be schools using English as a chief medium of instruction in every district in India, as well as others of inferior order conveying instruction through the vernacular, subject to constant inspection, with the inducement to scholarships at higher schools, as a means of encouragement to the pupils. Lastly, efforts should be made to extend the system of indigenous schools, such as Mr. Thomason had established in the North West Provinces some years before, capable of imparting elementary knowledge to the great mass of the people; with scholarships to places of higher education as rewards. Grants-in-aid were also ordered to be given to girls' schools, and to special institutions, and orders were given for the establishment of training schools for masters and mistresses in each Presidency, recruited from pupil teachers. In admissions to the public service it was ordered that preference should be given to educated men.

Female education.

Normal schools.

Measures adopted for carrying the orders of the Despatch of 1854 into effect.

Education Departments created.

Universities.

University examinations.

Affiliation of colleges and schools.

Zillah schools improved.

Normal schools established.

Slower progress of primary education.

This is the main outline of the system of education which now prevails throughout India. It is based on the Despatch of 1854. Steps were taken at once to carry out its orders. Directors of public instruction were appointed with a staff of inspectors and sub-inspectors in all three Presidencies. The three universities were created, with chancellors, vice-chancellors, and senates as governing bodies, conferring degrees in arts, law, medicine, and civil engineering, and with the same scheme of examinations. These consist of an entrance of matriculation examination, a first examination in arts, an examination for the bachelor's degree, and honours for master's degree. The first entrance examination took place in March 1857, when 162 candidates passed; and the first degrees were conferred in 1858. At the Bombay University the first entrance examination was in October 1859, and at Madras in the same year. The colleges and high schools enumerated in the Despatch were affiliated to the universities, and some of them were re-modelled. The Zillah or Anglo-vernacular schools were expanded and improved through grants-in-aid, and normal schools were established. All this had been accomplished by the end of 1859; but the more important work of bringing instruction within the reach of the masses has made slower progress. This could not be effected by grants-in-aid, and required active assistance and support from the Government.

Progress of education.

Regular progress has since been made in all parts of India in advancing and promoting the education of the people, mainly on the principles laid down in the Despatch of 1854. This progress is more in one direction in some provinces, and in another in others, as they are influenced by local circumstances on the bias of different minds, and it will be desirable to refer separately to the administration of the educational system as it has been developed under the several local governments.

Calcutta University.

The Calcutta University was incorporated in 1857. It is deserving of note that the three universities of India were calmly founded in the regular way of routine during the worst time of the mutinies, when our power seemed at its lowest ebb. The Calcutta University exercises functions over Bengal, the North West Provinces, the Punjab, Oudh, and the Central Provinces; the governing body is the syndicate, consisting of the vice-chancellor and six members of the senate; it prescribes the text-books and subjects, and the examinations, and thus dominates and guides the course of instruction in all the Bengal colleges and schools except the lowest. The endowments amount to 23,700 *l.*, capital included, 20,000 *l.* given by Prenchund Raychund of Bombay. There is also an endowment under the will of the late honourable Proosana Coomar Tagore for a law professorship. There has recently been much discussion respecting the extension of physical science subjects in the university course. The graduates number about 1,500, and the undergraduates exceed 2,000.

Physical science.

Colleges in the Provinces under the Bengal Government.

The colleges are institutions which educate the undergraduates for the higher examinations, and their studies are regulated by the university. In 1871 there were

were 1,503 Bengal candidates for admission into the university, of whom 581 passed; 434 at the first arts examination, of whom 171 passed; 221 for bachelor's degrees, of whom 95 were successful, and 21 out of 28 obtained master's degree.

In the Provinces under the Bengal Government, there are nine colleges entirely belonging to the Government, at which the pupils pay fees at the rate of 10 *s.* a month. In the year under review they contained 930 pupils; and five private colleges, receiving grants-in-aid, have 394 pupils; there are also two unaided colleges. The Presidency College at Calcutta has seven foundation scholarships. In all the Government colleges there are teachers of drawing, surveying, and physical geography, and in the Hugli College there is also a lecturer on botany and chemistry. It is intended to appoint professors of physical science, botany, and agricultural chemistry to some of the colleges.

Science professors.

In June 1872 the Lieutenant Governor of Bengal applied for two science professors from England to teach physical geography, chemistry, and scientific agriculture, and to study indigenous agriculture in different districts, and the requirements of various native and exotic staples.

Next to the colleges come the high schools, where an education is given up to the university entrance examination; there is one of these at the head-quarters of every district in Bengal, and one attached to every college. The number of Government high schools is 52, with 10,282 pupils; of aided high schools 78, with 8,112 pupils, and of unaided 48; those in Calcutta are self-supporting. The monthly fees at the Government high schools are 1 to 2½ rupees. Classes have been opened at 18 or 20 of them, in surveying, drawing, and physical geography.

High schools.

Next to the high schools rank the middle schools, which do not train so high as the university entrance standard. Many of them teach English, and others a vernacular, but with a training higher than the primary school course. Of these there are 1,658 in Bengal, with 80,000 pupils, of which 222 are Government schools, 1,240 aided, and 196 unaided. English is taught in one-third. These are the schools which receive most support from the people themselves; the yearly cost to a boy in a Government middle school being *Rs.* 11. 12., and in the aided schools *Rs.* 16. 3.

Middle schools.

Many of the middle schools, and all the high schools and colleges in Bengal educate their pupils with a view to the university examinations. The degrees enable students to enter the public service, and the professions of law, medicine, and engineering.

Schools educating for university examinations.

The work of bringing instruction within reach of the mass of the people has not been so successful in Bengal. There are about 13,500 indigenous rural schools, entirely supported by the people. The patshalas are the ordinary village schools where the vernacular is taught, the course including elementary arithmetic, bazaar accounts, reading and writing. There are also muktabs where the Koran is taught, and fôls, in one or two districts, for instruction in Sanscrit and Hindu sacred books. The ordinary village schoolmaster gets about 5 rupees a month from fees, and the numbers vary from 10 or 12 boys to 50 or 60. If the average be taken at 15, there are then 200,000 boys attending these schools. About 10 years ago a system was begun of aiding the patshalas, by forming them into circles of four each, with a trained teacher over them to visit and direct the teaching of the schoolmasters; but the funds were stopped by the Supreme Government, and local taxation was suggested, a course which was not then adopted. Only 2,439 primary schools are now aided by the Government, although the Despatch of 1854 urged the importance of encouraging indigenous schools for the education of the lower classes. This year the Lieutenant Governor of Bengal has granted 53,000 *l.* for primary schools; and the result will appear next year, when the system of grants-in-aid to men of the purely indigenous schoolmaster class will probably have been introduced.

Village schools.

Support of village schools.

There are nine training schools for masters of the higher, and 19 of the lower class under Government, containing 1,417 pupils; and 13 aided, with 436 pupils. The training is intended for vernacular and primary schools, except at Patna, where there are English classes. The course is for three years in these training schools, and the instruction includes geography, history, geometry, mathematics,

Normal schools in the Provinces under the Bengal Government.

mathematics, surveying, and the art of teaching, all conveyed through the vernacular.

Female education.

There are 344 girl schools in Bengal, with 9,518 pupils. Of these two are Government, 292 aided, and 47 private; and 110 are in Calcutta. The education is of the simplest possible kind. But home teaching is preferred, and an American lady has organised a system in Calcutta, by which 40 or 50 governesses visit houses, and by this means 800 girls are taught in the zenanas. But at present there is no real demand for the education of women and girls among the natives.

Expenditure on education in the Provinces under the Bengal Government.

The expenditure on education in Bengal in 1871-72, amounted to 318,705 *l.*; of which sum 181,403 *l.* was the Government grant, 77,021 *l.* derived from school fees, and 60,280 *l.* from subscriptions. In Bengal alone education has never been aided by local or municipal grants.

Education in the North West Provinces.

In the North West Provinces the greatest advance has been made in the instruction of the lower classes, where Bengal is rather behind hand; while Bengal takes a lead in the higher education, and at the University. A little over half the candidates from the North West Provinces passed the entrance and first arts examinations; but none succeeded in obtaining a bachelor's degree during 1871. The Government of the North West Provinces think that the University aims at too high a standard and pushes the study of English too far. Sir William Muir would prefer to see an effort at uniting a fair knowledge of English and European science with a profound Oriental scholarship, so as to create a class of teachers and writers capable of influencing the rising generation, and training the national mind through native media of thought to a high civilisation. At present in its highest grades, the University is beyond the people of the North West Provinces. From its foundation only four students from the North West Provinces have attained master's, and 22 bachelor's degrees. The aim, therefore, will be to work up the Anglo-vernacular schools, by a system of rewards and examinations, to a higher state of efficiency.

Affiliated colleges in the North West Provinces.

There are four Government colleges in the North West Provinces, affiliated to the University, at Agra, Bareli, and Benares, with 84 students; and four private colleges receiving grants-in-aid. Of these, St. Peter's at Agra is Roman Catholic; St. John's at Agra, and Joy Narayun's at Benares belong to the Church Missionary Society, and the Victoria College at Agra is supported by natives. At present there is a paucity of demand for higher education, and the expense of educating the 84 students at the three Government colleges is excessive. But it is considered that the existing system should be prosecuted in the hope that it will lead to larger and better results hereafter. Of the students who have left the colleges, 16 have become teachers, 11 are in the Government service, and three are pleaders. With a view to enabling students,

Allahabad College.

after passing the University entrance examination, to devote their undivided energies to Oriental literature, Sir William Muir, in June 1870, proposed the creation of a central college at Allahabad. A sum of 17,500 *l.* was subscribed by the wealthy natives of the province, and he applied for a grant of 5,000 *l.* for the building. There are, it was represented, two modes of education. In the Calcutta University system, English is the basis of instruction, as the language of the governing class, the key to offices of trust and emolument, and the means of introducing western science and philosophy; but this can never become a national system, and it is, to some extent, at variance with the Despatch of 1854, which urged the importance of careful study of the vernacular languages. The other mode, which, as the Lieutenant Governor of the North West Provinces thinks, has been too much lost sight of, is purely vernacular. He was anxious to form a central institution at Allahabad, which he believed to be necessary to combine this system into a homogeneous whole, by furnishing the stimulus of examinations and degrees. The Allahabad College will affiliate the vernacular schools, afford the means of education for undergraduates, and prepare them for the first arts examinations. The establishment for it was sanctioned in July 1872, the ground has been marked out, and a design for the buildings selected. With Sir William Muir's consent it has received the name of the "Muir University College."

High schools in the North West Provinces.

The Zillah or high schools of the North West Provinces, educate either up to the entrance standards of the university, or to the preparatory standard; there are

nine

nine of the former, and 14 of the latter class, all with good school houses, except those at Mirat (Meerut) and Farakhabad, and generally with boarding-houses attached. The latter arrangement is necessary in order that the inhabitants of villages may share in the benefits of high and middle class education. Allahabad school is the largest in the North West Provinces, and Etâwah (Hume's High School) has been most successful, especially this year, when all its five candidates passed. The highest Oriental teaching is at the Benares School, where there are 27 Government scholarships. Schools are also attached to the three colleges. A chain of scholarships binds together the university, the colleges, and the high schools, as was suggested in the Despatch of 1854. The Zillah, or high schools, receive 130 scholarships a year, worth 3 rupees a month; the undergraduates, 80, at 4 to 5 rupees; the graduates of the first arts examination, 50, at 10 rupees; the bachelors of arts, eight, at 18 rupees; and the masters of arts, five, at 25 rupees a month. The whole cost of these scholarships being 1,780 *l.* a year. There are also a great number of aided high schools, most of them belonging to missionary societies.

Scholarships.

Tahsili schools.

The Tahsili schools of the North West Provinces are equivalent to the middle schools of Bengal. In 1845, when Mr. Thomason first began to provide a system of general education for the people, there were 7,361 indigenous schools in the North West Provinces, with 6,433 pupils. He determined to establish a school at the head-quarters of every tahsildar, and his plan was fully carried out. There are now 172 Tahsili schools, with 8,986 pupils. They do not teach English, but most of them give instruction in Persian, as well as in the vernacular.

Halkabundi schools.

The Tahsili schools provided for instruction in the towns: but Mr. Thomason, ably assisted by Mr. Reid, also proposed to supply schools for the rural population. A system of circle schools was introduced, called Halkabundi, by grouping several villages together, and establishing a school in a central position, no village being more than a mile from it. There are now 3,336 of these Halkabundi schools, with 118,647 scholars. The prospects of this class of schools were never more encouraging, owing to the greater expenditure upon them, due to the introduction of the local cess in the new settlement, and to the acreage cess in permanently settled districts, under Act XVIII. of 1871. One-half of the former, and a part of the latter, are set aside for the education of the taxpayers, to be spent in the district. A sum of 40,000 *l.* has been so allotted. The Halkabundi teachers get from 10 *l.* to 11 *l.* a year, and give instruction in the vernacular (Urdu or Hindi), history, geography, and arithmetic. Some also teach Persian. These village schools are rising in number and importance, and are becoming more uniformly spread over the province, through the action of the new system of local taxation. There are also 4,609 unaided vernacular schools.

Progress of primary education in the North West Provinces.

Normal schools in the North West Provinces.

There are 12 normal schools for training masters and mistresses, of which seven are maintained by the Government, and five are aided. Four hundred and seventy teachers are being educated for village schools.

Female education in the North West Provinces.

The female schools belonging to the Government number 427, with 7,917 pupils, beside 108 private girl schools. But, as in Bengal, there is as yet no real response on the part of the people to the endeavours of the Education Department to popularise these schools. Progress is very slow, and "the dead slumber of ignorance still shrouds the women of North India."

Missionary schools.

The missionary societies have many schools in the North West Provinces, and are very actively at work with educational agencies. They receive grants-in-aid, in accordance with the principles of the Despatch of 1854, where it is laid down that these grants are to be given wherever a school attains a certain standard, quite irrespective of religion. There has been a great expansion of the system of grants to aided schools. At present there are 324 schools receiving grants-in-aid, with 19,770 scholars. In 1860 there were only six.

Expansion of the grant-in-aid system.

Present extent of education with reference to the population in the North West Provinces.

The total number of pupils under instruction in the North West Provinces is 218,466, of whom 162,979 are educated, more or less, at the public expense, and 55,467 owe nothing to the State. The number learning English is 18,539; the school-going age being six to 14, and the number of boys in the population being 2,500,000. It is calculated that one in 11 boys are at school. In other words, there are 250 boys in every 3,000 people, and of these, 16 are at Government schools, 14 at vernacular schools, and two learn English. In the

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same 3,000 people there are 200 girls, and one is at school. So that a great deal remains to be done.

Desire to learn English in the North West Provinces.

In the opinion of Sir William Muir the desire for a knowledge of English is daily on the increase. "There are now, what there never were before, spontaneous endeavours on the part of the Native community to acquire English learning." An English master is entertained at the Jaunpur School, which is a Muhammadan religious foundation. "Through the medium of English alone can we hope to impart the highest learning and purest morality, and this will continue to be the case till the enlightenment and scientific spirit of the West are transposed into a new and higher vernacular literature for India."

Expenditure on education in the North West Provinces.

During the year under review, education, as has already been explained, became a provincial charge; and there will now be less delay and trouble in obtaining sanctions, money will go further, and be more usefully expended. The cost of education in the North West Provinces for 1871-72 was 151,765 *l.* The revenue of 13,000 *l.* was derived from the contributions of municipalities, which are beginning to assume increasing prominence, and amounted to 4,340 *l.* in 1871-72, from fees, endowments, and gifts. But the Government has now nearly reached the end of its means. The transfer of the Education Grant from Imperial to provincial accounts was made on the understanding that it should never be increased, except by means of local taxation; and the full amount of cesses has already been imposed. There cannot, therefore, again be the same rapid expansion in the number of schools as took place between 1860 and 1870. The further development of education must depend on the expenditure of the people themselves; and it is hoped that there may yet be large expansion from the efforts of an increasingly enlightened population.

Education in the Punjab. Affiliated colleges.

In the Punjab, there are 1,325 Government, and 547 aided schools and colleges. The two colleges, affiliated to the University, are at Lahore and Delhi; and during the year two of their students received master's, and three bachelor's degrees. There are 56 students in each of these colleges. The Punjab University College, like that contemplated for Allahabad, has for its objects the encouragement of the study of Eastern classical literature, the improvement of the vernacular, the promotion and diffusion of European science, and the association of the learned and influential classes of the province with the Government in promoting and supervising popular education. Its scholarship amount, in the aggregate, to 8,400 rupees. Among special schools in the Punjab, there is a Government Ward School at Ambala, for the education of Government wards, and the sons of natives of rank, where there are 10 pupils; and at Delhi there is the Anglo-Arabic school, endowed by a legacy of Nawab Fazl Ali Khan, for the furtherance of education in that city, but managed by the Government. It gives instruction to 243 students in Arabic, who are all Muhammedans. There are five Government and 11 aided high schools, and 103 Government and 50 aided middle schools, corresponding to the Tahsili schools of the North West Provinces. The village or primary schools number 1,060 Government, and 166 aided, with an average of 35 scholars each. There are three Government and six aided normal schools. The condition of the female schools in the Lahor circle is decidedly improving, and the female normal schools are beginning to send out trained teachers. There are now 125 Government, and 314 aided girl schools, with 7,959 pupils. There has been real progress in the education of Punjab children, yet only 100,000 receive any instruction out of 3,000,000; so that there is still plenty of work to be done. The expenditure, in 1871-72, was 61,685 *l.*

University College.
Ward School at Ambala.
Anglo-Arabic School at Delhi.
Punjab high schools.
Middle schools.
Primary education.
Normal schools.
Female education.
Expenditure on education in the Punjab.

Oudh education.

In Oudh there is, at Lucknow, the "Canning College," with 720 pupils, of whom 56 are in the college department. There are also 11 high schools with 3,096 pupils. The number of village schools is 747, and there is now a Government, or aided school within 4 ½ miles of every child in Oudh. Every class of school has its own curriculum, printed and suspended in each school-room, with the hours of assembly and holidays, and every schoolmaster has a manual of duties, with a few plain directions in school management. Each district also has a library for the use of village schoolmasters. The training school for masters is doing well, and has 151 scholars; that for mistresses, 36; and there are now 81 girl schools, with 1,908 pupils. The total number of schools of all classes in Oudh, is 1,541, and of scholars, 54,596. The expenditure from provincial

provincial funds for 1871-72, was 23,522 *l.*; and from the cess and subscriptions, 23,898 *l.*

Education in the Central Provinces.

The Central Provinces are divided into three educational circles, each with an inspector. There is no college, and only one high school, that of Sagar, which is, however, well managed and efficient. Candidates for University distinction in the Central Provinces are divided in their allegiance between Calcutta and the *Alma Mater* of Western India. On the one hand, Calcutta has not yet added Marathi to the list of second languages in the matriculation examination. On the other, the Bombay matriculation is *viva voce*, and very strict. The Nágpur candidates take up Sanscrit as their second language, and go to Calcutta. Of 25 who went up in 1871-72, 14 passed. Besides Ságar, there is a missionary school at Nágpur of the same rank, receiving aid. There are 47 Government middle schools; and 683 village or vernacular town schools, with 38,500 scholars. The four normal schools for masters are at Nágpur, Jabalpur, Ráipur, and Sambalpur; and there are three for mistresses, but they are reported not to be satisfactory institutions. The total number of schools in the Central Provinces is 1,825, with 85,956 scholars. In the Berárs, there are 344 schools, and 13,727 scholars; while in 1866, there were only 35, teaching 1,880 boys.

Education in Berár.

Education in Mysor.

In Mysor there are five high schools, which train up to the Bachelor of Arts degree at the Madras University, and seven which give education sufficient to pass the entrance examination. The Bangalor high school is efficient and popular, and it is here that a branch examination of the Madras University is held annually, in December. In 1871-72, out of 122 candidates, 55 passed the matriculation, and three out of 13 succeeded in the First Arts examination. Seven Mysor undergraduates obtained bachelor's degrees. There are 487 village or Hóbli schools, as they are called in Mysor, besides 1,900 unaided. These Hóbli schools are very popular, and the number of scholars has increased to such an extent in some parts of the country that assistant masters are required; and the interest felt in them by the people generally is shown by their eagerness to build or rent suitable premises. There are three normal schools for Hóbli, and for Muhammadan training. The question is under consideration, whether it is feasible to have simple, but carefully compiled agricultural treatises of the most rudimentary description, prepared in the vernacular, to form part of the curriculum in the village schools. In Curg there is one school which trains up to the matriculation standard, but no Curg boy has yet passed; four middle schools, with 171 pupils, to qualify for the higher school, and 27 lower schools, which are to be increased to 84, all teaching in Canarese. There are now 1,512 pupils, and, as there is no female school, the little girls, 161 of them, go to school with their brothers, and learn needle work, in addition to the regular course.

Hóbli schools in Mysor.

Education in Curg.

Education in British Burma.

British Burma is said to be under the influence of the Calcutta University, but at present the connection is only nominal. Three boys have been sent up for the entrance examination, but all failed. The five high schools in Burma are reported not to be deserving the name, although they may become so in time, and all belong to Missionary Societies. A college is needed at Rangún; there are now only four Government middle-class schools and 12 aided, but they are stated really to be very second-rate Anglo-vernacular schools. Altogether, Government has seven schools, educating 505 boys, where the teaching is of a most inferior kind; and there are 15 aided missionary schools. Outside the towns of Rangún and Mulmein, there are only 774 children under instruction, and the education cess, with which little has yet been done, remains unspent. Fortunately, the Burmese people are provided with a system of primary education of their own. The monastic schools of the Buddhist priests afford an excellent means of obtaining gratuitous primary instruction to the mass of the people. The wild Karens are taught by the American Baptist Missionaries, whose schools are among the best in the province. They have prepared books and maps, and teach the Karens entirely through their own vernacular.

Karens

The Madras University.

The Madras University, founded in 1857 by Lord Harris, grants the same degrees, and has the same system of examinations as that of Calcutta. It has several endowed scholarships, such as a 1,000 *l.* given by the Maharaja of

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Travancor for a Travancor graduate in medicine or civil engineering, a similar one for a Cochin student, to the value of 650 *l.*, given by the Raja of Cochin, and prizes for Tanjor students by Sir Madava Ran. The graduates number 350; the undergraduates over 500. The results of the University examinations in 1871-72 were considered satisfactory. Out of 1,419 candidates for matriculation, 492 passed; while 205 passed the First Arts examination, and 131 that for Bachelor's degree. The Brahmins are far ahead as scholars, then come other Hindoos, and the Muhammadans are nowhere; none passed the First Arts examination, and only 12 matriculated. There are 13 colleges affiliated to the University in the Madras Presidency, and 52 high schools. The Presidency College has six professors, and 135 matriculated students. At the Combaconum Provincial College there are 65 undergraduates, besides 520 other pupils. The Tanjor High School has 762 in various classes; and the Central Institution of the Free Church of Scotland, the strongest among the aided schools, has 73 students in its college department. These are the four high schools which are most successful in the University examinations. In the south, most of the best schools belong to missionaries; and in Tinnevelli there are no Government schools, the field being given up to the two Anglican Church Societies. There are 484 middle schools, and 3,373 lower schools, to 2,037 of which grants-in-aid have been sanctioned, on the principle of payment for results. The local and municipal education funds are to be applied mainly to primary education. The area where the rate is raised is to be called a union, and the schools are not to be more than 2½ miles from the houses of any of the ratepayers. The only Government primary schools are the hill schools in Ganjam and Nellor, established for the civilisation of the Yenadies. There are 183 students in the normal schools, and the Government training school for women has made a fair beginning. In 1871-72 there were 163 girl schools in the Madras Presidency, with 8,267 pupils. Altogether, there are 4,400 schools and colleges, and 135,192 pupils; the proportion of scholars to population being reported as from 1 in 68 in the Presidency town to 1 in 380 in Bellary. But there has been a great increase in the number of schools and scholars during the last year.

Madras affiliated colleges.

Missionary schools.

Madras middle schools.

Lower schools.

Madras primary education.

Madras normal schools.

Madras female education.

Prospects of Madras education.

The Bombay University was founded by Lord Elphinstone in 1857; to consist of a Chancellor, a Vice-chancellor, and Senate, for faculties of art, law, medicine, and engineering, and the same system of examinations as at Calcutta and Madras. The Bombay University sets the standard of higher education, and examines for degrees. It has been enriched and endowed by the wealthy Settias of Bombay. The endowments for prizes amount to 970 *l.*; sums of 10,000 *l.* have been given by Sir Cowasjee Jehanghir Readymoney for the University Hall; of 40,000 *l.* by Premchund Roychund for the library and tower; and a sum of 120 *l.* from other benefactors for a grant of arms, and for the University silver mace. The hall and library have been erected on the esplanade at Bombay. The graduates and undergraduates now exceed 600, many of whom have taken distinguished places in the public service, and in the liberal professions.

The Bombay University.

There are six colleges affiliated to the University, 17 high schools and 133 middle schools, besides 2 aided colleges, 19 aided high schools, and 94 aided middle schools. Of the colleges, the Elphinstone College at Bombay occupied a handsome building in front of the Victoria Gardens, towards the erection of which Sir Cowasjee Jehanghir gave 20,000 *l.* The college now has 114 students, for whom eight professors are provided. The Deccan College at Púna has 83 students. There were in 1871-72 altogether 875 candidates for matriculation from the high schools, of whom 227 passed. The first grades of middle class schools prepare boys for the high schools. The vernacular or village schools number 2,909, with 145,330 boys, supported by the Government and several unaided indigenous schools. Their chief source of support has been from one-third of an anna cess on every rupee of land revenue, besides a special grant; and hitherto there has been a slight but steady increase in the number of these primary schools. Now, things have come to a stand-still. Much success has attended the establishment of night schools for artisans and workmen. There are now 38, with 1,013 scholars, and it is intended to add technical instruction, the Dharwar factory and other similar works being utilised for

Bombay affiliated colleges.

Elphinstone College.

Deccan College.

Middle schools.

Primary education in Bombay.

Bombay night schools.

for the purpose. There are 177 Government and 27 aided girl schools, and three training schools for women; the men's normal schools are more numerous. The Rajkumar College is established for the education of young chiefs in Katiwar. There are now 17 inmates, including the Thakur of Limri, who is at the head of the institution. They all have ponies, and a good gymnasium is provided, where they show considerable spirit, as well as in the play-ground games. It is proposed to have a preparatory school at Ahmadabad, for the Rajkumar College. The total number of schools in the Bombay Presidency is 3,446, with 191,684 scholars.

Bombay female education.

Bombay normal schools.

Rajkumar Colleg for chiefs.

Number of schoo in the Bombay Presidency.

There are, in addition to the University colleges, several special institutions for training students for the professions of civil engineering, medicine, and law; as well as schools of design and museums. The first of these, in point of importance, is the Thomason College at Rúrki, founded in 1847, which was designed to give instruction in civil engineering to Europeans and Natives, with a view to their appointment to situations connected with the public works of the country. It has a library of 11,796 volumes; a press for printing, lithography, engraving, and binding; an instrument depôt; and publishes a valuable series of professional papers on civil engineering. The students are of various classes, officers in the army, non-commissioned officers, and privates, English civilians and Native youths. There are now 197 students at Roorkee, 120 of whom are qualified for certificates. Forest apprentices are also to be sent there, after two years' work in the forests, for a training in drawing and surveying. A college for civil engineers, to supply the Indian Public Work Department, has now been established in England, but Rurki must continue to perform a similar part for Anglo-Indians and Natives of India. It has already played this part for 26 years, expanding its scope of usefulness, creating an engineering profession among natives, and disseminating an engineering literature adapted to Indian wants and experiences. At Calcutta, there is another Civil Engineering College, with 116 students; and another at Madras for officers, soldiers, and natives, with 130 students. The Púna Civil Engineering College is affiliated to the University, and has 170 students. The building for it was commenced in 1865, and completed in 1868, at a cost of 18,000 *l.*, of which Cowasjee Jehanghir contributed 5,000 *l.* It consists of a main hall, with lecture, drawing, and photograph rooms, to which is now being added a set of workshops. There is another small engineering college in Sind.

Civil engineering colleges.

Rúrki College.

Calcutta Civil Engineering College.

Madras Civil Engineering College.

Pnúa Civil Engineering College.

The medical colleges in India also prepare for university degrees. The Calcutta Medical College is said to have a larger number of students than any other in the world; namely, 1,046. Its students have obtained four degrees of Doctor of Medicine at the University, 26 of Bachelor, and 439 as Licentiates. Many of these native doctors are employed in the public service, and many more settle down to private practice in Bengal towns and villages. The Agra Medical College receives pupils who have been trained in the numerous dispensaries; and similar useful work is done by the Lahor Medical School, which now has 42 students. The Grant Medical College at Bombay has 75 graduates and undergraduates, 69 hospital apprentices, 40 vernacular students, and 38 native medical pupils; and it is liberally endowed with scholarships and prizes. Sir Cowasjee Jehanghir gave 20,000 *l.* for adding an Eye Hospital to the Grant College. There is a wide field for private practice in Bombay, and many of the medical students have the means and energy to proceed to England and compete for appointments in the covenanted service. The Madras Medical College has 73 students in the college, and 762 in the school class. A Nágpur School of Medicine has existed for five years.

Medical Colleges.

Calcutta Medical College.

Agra Medical College.

Lahor Medical School.

Grant Medical College at Bombay.

Madras Medical. College.

Nágpur School of Medicine.

The schools of art and museums are also powerful instruments in the spread of education. Dr. Hunter's School at Madras has long been famous for the tasteful designs produced under his instruction, and for the amount of useful work done. The School of Art at Calcutta was formed in 1864, and gives a three years' course in drawing, lithography, and decorative art. There are now 76 pupils, and much good work is turned out. Among other things, the pupils did the water-colour drawings of venomous snakes, from specimens, for Dr. Fayrer's work, and a series of pen-and-ink etchings of carved ornamentation on temples in Orissa. At the School of Art in Bombay there are 57 pupils, who learn drawing, painting, and modelling. Museums have long been established

Schools of art.

Dr. Hunter's School at Madras.

School of Art at Calcutta.

School of Art at Bombay.

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lished at Calcutta and Madras. The Indian Museum at the former city was formed in 1866, and there are also a geological museum, and one belonging to the Asiatic Society. The Government Central Museum at Madras was visited by 116,691 persons in 1871-72; and there are small local museums at Rájmahendri and Utakamund. The Bangalor Government Museum, founded in 1864, had 162,897 visitors in 1871-72.

Calcutta museums.

Madras museums.

Bangalor Museum.

Bombay Museum.

The Bombay Museum was founded by Lord Elphinstone, under the name of the "Government Central Museum," for the illustration of the economic products and natural history of Western India. The late Dr. Buist, LL.D., F.R.S., was the first curator, and the Rev. Dr. Fraser, LL.D., succeeded him. The collections organised by these gentlemen were lodged in the town barracks, and on the breaking out of the Mutiny in 1857 they were destroyed, the brigadier commanding the Bombay garrison having ordered them to be thrown out of the windows. In the same year Lord Elphinstone appointed Dr. Birdwood as curator, who, with the aid of Dr. Bheu Daji, raised a large sum of money by subscriptions from the public, for the erection of a building. It was erected in the Agri-Horticultural Society's garden; and thus was established the Victoria and Albert Museum and Gardens, at a total cost of 100,000 *l.* The first stone was laid by Sir Bartle Frere in November 1862; but the works were stopped in 1865 for want of funds, and it was not until 1868 that the Government again undertook to complete them. The new museum was opened in 1871. During the interval of its building, Dr. Birdwood arranged the collection in the Town Hall, and zealously worked at the task of making it a really useful institution, until his retirement in 1868. He drew up valuable reports on the Tasar silk and on the Indian blister fly, and in connection with the museum, he published a catalogue of the economic vegetable products of Western India. It was also through his connection with the Victoria Gardens that he was enabled to identify the sources of frankincense (*gum olibanum*), and to complete his important monograph on the genus *Boswellia*.

Dr. Birdwood as curator.

Victoria and Albert Museum at Bombay.

Dr. Birdwood's services.

Museum at Karáchi

There is also a small museum at Karáchi. The Lahor Central Museum was visited by 66,069 persons during 1871-72. It contains a fine collection of coins, and a most interesting gallery of Græco-Bactrian sculptures. The Lacknow Museum was visited by 96,104 persons; and 88,000 visitors came to the Nagpúr Museum in 1871-72. There are institutions of the same kind at Agra and other places, and the numbers of visitors who flock to them show that they take their share in the education of the people.

Lahor Central Museum.

Lacknow Museum.

Books and newspapers.

But one very important criterion for judging of the intellectual movement that is going on in India is the number and character of the books and newspapers that are published. In Calcutta there are 34 daily, weekly, and monthly newspapers published, of which 18, or a little over half, are English, and the remainder Native; but there are only six English newspapers published in other towns of Bengal, against 32 Native newspapers. The number of magazines published at Calcutta is 19, of which three are Native, and the rest English, against eight Native, and two English published in other towns in Bengal. The number of books published in Bengal during the year under review was 1,005, of which 759 were Native and 246 English; but the return gives no particulars as to their character. The Native press in Bengal, in the opinion of the Lieutenant Governor, is a very active and important power, and shows much talent and intelligence. It is free spoken, and perhaps hypercritical, in its comments on the measures of the Government; but the educated Natives of Bengal are believed to be, in reality, thoroughly loyal.

The press in Bengal.

Bengal press.

Literature in the North West Provinces.

There were 30 Native newspapers published in the North West Provinces in 1871-72, with an average circulation of 253 copies each, and nine magazines. Of the two languages, Urdu keeps a decided lead in relation to Hindi, the great majority of the newspapers and magazines being in the former language. As a rule, there is nothing that is offensive to morality or good taste in these publications, and much that is useful. The Government takes a large number of copies, with a view to stimulating the circulation; and it is considered that the intellectual progress resulting from the reading of these papers is not unimportant. Three hundred and seventeen books were published in 1871, of which 90 were in Urdu, 53 in Hindi, 56 in Persian, 47 in Arabic, and 33 in English. Of the Urdu books, 13 were on religion, 11 poetry, 10 fiction, and

10 on law. Religion and poetry are the subjects on which books are most in request. The Government grants rewards for meritorious authorship in the vernacular.

Punjab press.

In the Punjab, 12 Native and six English newspapers are published; and in 1871–72 the books were 355 in number, of which 20 were English, and the rest Native. In Oudh there are four English and three Native newspapers. No information respecting newspapers is given in the Madras Report; but 508 books were published in that Presidency during the year 1871–72, of which 98 were original. In English there were 70; in Tamil, 177; in Telugu, 115; in Malayalim, 26; in Canarese, 22. 159 were on religion; 77 on poetry; 39 fiction; and 24 law. Of the four languages in the Bombay Presidency, Marathi and Gujráthi show signs of intellectual activity; but in Canarese and Sindi there are few books, and no newspapers. A reporter on the Native press is maintained by the Bombay Government, who draws up a weekly report. Of the 59 Native newspapers in the Presidency, 29 are in Marathi, 26 in Gujráthi, three in Urdu, and one in Persian. They are published in most of the large towns, and their general tone is loyal, the advantages of British rule being understood and confessed, although there are acrimonious attacks on particular measures, and on the conduct and actions of individual officers of Government. In 1871 the number of books published in the Bombay Presidency was 779, out of which 157 were English, 214 Marathi, and 243 Gujráthi. Four hundred and thirty-three were original works, and the rest translations or reproductions. The taste of readers seems to run in the same direction as in the North West Provinces and the Madras Presidency. There were 180 on poetry, 105 on religion, and 69 on law. The general tone of vernacular literature, in respect of morality, is reported to be good and progressive.

Oudh press.

Books in Madras.

Bombay newspapers.

Bombay books.

Scientific and literary societies.

The growth of scientific and literary societies among the Native communities is a very remarkable sign of progress and of intellectual activity which deserves careful attention. There have always been societies in India in which Europeans and educated Natives meet on common ground, and such institutions continue to increase and flourish. The Bengal Asiatic Society was founded by Sir William Jones in 1784 as a centre to which individual inquirers might forward their materials, and from which they might derive assistance and advice; and the Madras Literary Society was formed in 1818. The Bombay branch of the Asiatic Society dates from the year 1804, and in 1817 it was grafted on to the Royal Asiatic Society in England as the Bombay branch. Its Journal was established in 1841, and the publication has been regularly kept up ever since at intervals of one or two years. During ten years Mr. William Frere was its president, and Dr. Carter its secretary, men of high literary and scientific attainments; and on the retirement of Dr. Carter, who may be looked upon as the father of Indian geology, Dr. Birdwood succeeded to the secretaryship. During his brief incumbency the number of members was more than doubled, and the annual receipts were increased from 1,000 *l.* to 3,400 *l.*, in addition to 800 *l.* from Sir Cowasjee Jehanghir for the purchase of coins, and 500 *l.* for the purchase of standard works on Oriental literature; 1,000 *l.* from the late Honourable Jugernath Sunkersett for books on natural history, and 1,000 *l.* from Premchund Raychund for library fittings. Altogether 6,200 volumes were added to the library by Dr. Birdwood. He was succeeded by Mr. James Taylor, the distinguished Secretary to the Bombay Chamber of Commerce, and the Society has continued to flourish and to publish its Journal with regularity. The Bombay Geographical Society dates from 1830, and its Journal contains many valuable papers, chiefly from officers of the Indian Navy; and the Medical and Physical Society, though it languished from 1863 to 1869, has now been revived, and published a large volume of transactions in 1871. In Calcutta, besides the venerable Asiatic Society, there are the Bethune Society, for the promotion of intercourse between European and Native gentlemen, the Dalhousie Institute for the literary and social improvement of all classes of the community, the Bengal Social Science Association, and others. In other parts of India there are several societies, such as the Rangún Literary Society, with lectures and classes, established in 1857. But in addition to these societies of European origin, there are now throughout India, and especially in Bengal,

Bengal Asiatic Society.

Madras Literary Society.

Bombay Branch of the Asiatic Society.

Bombay Geographical Society.

Medical and Physical Society.

Calcutta Bethuna Society.

Dalhousie Institute.

Bengal Social Science Association.

Rangún Literary Society

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Native Societies.

Bengal, many associations, some of them literary or scientific, but others political, which were founded by and are composed entirely of natives. In Bengal, among many others, there are the "People's Association" and the "Radical League." The Lieutenant Governor says of them that "if not very completely justifying the titles they assume, they are nevertheless an earnest of things to come, and are on the whole much to be encouraged. Some of them are already interesting societies, with much reality and substance in them." In Oudh there are three native Reform Clubs, at Lacknow, Faizabad, and Gonda. In the Central Provinces the associations appear to be chiefly formed by school-masters, to afford opportunities for self-improvement, but there are also native clubs. The information on this interesting subject from other parts of India is very incomplete; but it is clear that these native societies and institutions are advancing with rapid growth, and springing into existence in all directions.

Missionary work.

The numerous excellent missionary schools receiving grants in aid in the various provinces have already been referred to; but the whole subject of missionary enterprise in India has such an important bearing on the intellectual advancement of the people, that any notice of Indian education would be incomplete without giving some details respecting the work of the missionaries. A recent inquiry into the statistical details of missions in India, combined with the ordinary sources of information, furnish materials for estimating their progress, which are authoritative and complete.

Number of societies and missionaries.

Stations.

The Protestant missions of India, Burmah and Ceylon, are carried on by 35 missionary societies, in addition to local agencies, and now employ the services of 606 foreign missionaries, of whom 551 are ordained. They are widely and rather evenly distributed over the different presidencies, and they occupy at the present time 522 principal stations, and 2,500 subordinate stations. The entire Presidency of Bengal, from Calcutta to Peshâwar, is well supplied with missionaries, and they are numerous in the southern portion of the Madras Presidency. The various missions in Calcutta, Bombay, and Madras are strong in labourers, and almost all the principal towns of the Empire have at least one missionary. A great impulse was given to the efforts of these societies by the changes in public policy inaugurated by the Charter of 1833, and since that period the number of missionaries, and the outlay on their missions have continued steadily to increase. In 1852 there were 459 missionaries in India at 320 stations, and in 1872 the number of missionaries were increased to 606, and of stations to 522.

Co-operation of missionary societies.

This large body of European and American missionaries settled in India, bring their various moral influences to bear upon the country with the greater force, because they act together with a compactness which is but little understood. Though belonging to various denominations of Christians, yet from the nature of their work, their isolated position and their long experience, they have been led to think rather of the numerous questions on which they agree, than of those on which they differ; and they co-operate heartily together. Localities are divided among them by friendly arrangements, and with few exceptions it is a fixed rule among them, that they will not interfere with each other's converts and each other's spheres of duty. School books, translations of the scriptures and religious works, prepared by various missions, are used in common; and helps and improvements secured by one mission, are freely placed at the command of all. The large body of missionaries resident in each of the presidency towns, form missionary conferences, hold periodic meetings, and act together on public matters. They have frequently addressed the Indian Government on important social questions involving the welfare of the Native community, and have suggested valuable improvements in existing laws. During the past 20 years, on five occasions, general conferences have been held for mutual consultation respecting their missionary work; and in January last, at the latest of these gatherings, at Allahabad, 121 missionaries met together belonging to 20 different societies, and including several men of long experience who have been 40 years in India. The railway system rendered such a gathering easy, and brought the members of the conference from all parts of the Empire.

Various forms of labours.

The labours of the foreign missionaries in India assume many forms. Apart from their special duties as public preachers and pastors, they constitute a valuable

valuable body of educators; they contribute greatly to the cultivation of the native languages and literature, and all who are resident in rural districts are appealed to for medical help to the sick.

Knowledge of the native languages.

No body of men pays greater attention to the study of the native languages than the Indian missionaries. With several missionary societies (as with the Indian Government) it is a rule that the younger missionaries shall pass a series of examinations in the vernacular of the district in which they reside; and the general practice has been, that all who have to deal with natives who do not know English, shall seek a high proficiency in these vernaculars. The result is too remarkable to be overlooked. The missionaries, as a body, know the natives of India well: they have prepared hundreds of works, suited both for schools and for general circulation, in the fifteen most prominent languages of India and in several other dialects. They are the compilers of several dictionaries and grammars; they have written important works on the Native Classics and the system of philosophy; and they have largely stimulated the great increase of the Native literature prepared in recent years by educated Native gentlemen.

Mission presses and publications.

The mission presses in India are 25 in number. During the 10 years between 1852 and 1862, they issued 1,634,940 copies of the Scriptures, chiefly single books; and 8,604,033 tracts, school-books, and books for general circulation. During the 10 years between 1862 and 1872, they issued 3,410 new works in 30 languages; and circulated 1,315,503 copies of books of Scripture; 2,375,040 school-books; and 8,750,129 Christian books and tracts. Last year two valuable works were brought to completion, the revision of the Bengali Bible, and the first publication of the entire Bible in Sanskrit. Both were the work of the Rev. Dr. Wenger, of the Baptist Mission in Calcutta.

Missionary schools.

The missionary schools in India are chiefly of two kinds, purely vernacular, and Anglo-vernacular schools. The former are maintained chiefly, but not exclusively, in country districts and small towns; the education given in them is confined pretty much to reading, writing, geography, arithmetic, and instruction in simple religious works, such as the "Peep of Day." In the Anglo-vernacular schools a much higher education is given, not only in those subjects which are taught in English, but in those in which the vernacular is employed; a higher knowledge even of the vernacular languages is imparted in these schools than is usually given in purely Native schools. These schools are most in demand in country towns, in the Presidency cities, and in the districts immediately around them. Bengal has long been celebrated for its English schools; and the missionary institutions in Calcutta still hold a conspicuous place in the system and means of education generally available to the young Hindus of that city. All the principal missionary institutions teach up to the standard of the entrance examination in the three universities of India; and many among them have a college department in which students can be led on through the two examinations for B.A., even up to the M.A. degree. A Table showing the number and range of these schools will be found in the Appendix.

Anglo-vernacular schools.

Training colleges.

In addition to the work of these schools it should be noted that several missions maintain training colleges for their Native ministers and clergy, and training institutions for teachers. These colleges and institutions are 85 in number, and contain 1,618 students. The training institutions for girls are 28 in number, with 567 students. An important addition to the efforts made on behalf of female education is seen in the Zenana schools and classes which are maintained and instructed in the houses of Hindu gentlemen. These schools have been established during the last 16 years, and now number 1,300 classes, with 1,997 scholars, most of whom are adults. Of these, 938 classes, with 1,523 scholars, are in Bengal and the North West Provinces. The effort has not yet much affected the other provinces of India.

Zenana schools.

Increase in the schools.

The great progress made in these missionary schools, and the area which they occupy, will be seen from the following fact. They now contain 60,000 scholars more than they did 20 years ago. The figures are as follows: In 1852 the scholars numbered 81,850; and in 1872 the number was 142,952.

University examinations.

The high character of the general education given in the college department of these institutions may be gathered from the following facts. Between 1862

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1862 and 1872, 1,621 students passed the entrance examination in one or other of the three Indian universities; 513 students passed the first examination in Arts; 154 took the degree of B.A.; 18 took the degree of M.A., and six that of B.L. A considerable proportion of the amount expended upon education by the missionaries in India is provided by school fees, which, in recent years, have been much increased. The statistical tables, however, do not give the exact amount, neither do they state the amount received from the Government grants-in-aid. In the higher education it is believed that little expenditure falls upon the missionary societies beyond the salaries of the superintending missionaries.

Protestant converts.

The statistical returns now referred to state very clearly and completely the number of the converts who have been gathered in the various Indian missions, and the localities in which they may be found. They show also that a great increase has taken place in the numbers of these converts during the last 20 years; as might be expected from the lapse of time, the effects of earlier instruction, and the increased number of missionaries employed. In 1852 the entire number of Protestant Native converts in India, Burma, and Ceylon, amounted to 22,400 communicants, in a community of 128,000 Native Christians of all ages. In 1862 the communicants were 49,688, and the Native Christians were 213,182. In 1872, the communicants were 78,494, and the converts, young and old, numbered 318,363.

Rate of increase.

Number of small congregations.

A very large number of the Christian communities scattered over India are small, especially in the country towns; and they contain fewer than 100 communicants and 300 converts of all ages. At the same time some of these small congregations consist of educated men, have considerable resources, and are able to provide for themselves. From them have sprung a large number of the Native clergy and ministers in different churches, who have received a high education in English institutions, and who are now taking a prominent place in the instruction and management of an indigenous Christian church. The Native ministry contains also men who have been well trained through the medium of the vernacular languages; but this important body of men are encouraged to master the English language also, that they may secure access to the vast store of Biblical literature which it contains, and which will give them direct aid in their duties. The Native converts are thus distributed at the present time:—

Native Protestant Converts in India, 1872.

Divisions.	Communicants.	Native Christians.	Native Ordained Ministers.	Native Contributions.	
				Rs.	
Lower Provinces -	13,502	46,968	35	8,937	
North Western Provinces and Oudh.	3,031	7,779	19	5,265	
Punjab - - -	707	1,870	14	1,661	
Bombay and Central India.	2,256	6,686	26	6,583	
Madras - - -	33,320	160,955	131	62,675	
Burmah - - -	20,514	62,729	77	42,736	
Ceylon - - -	5,164	31,376	79	31,267	
TOTAL - - -	78,494	318,363	381	159,124	= £. 15,912

Populations of the towns.

The missionaries in the course of their efforts have found the populations of the great cities much more tenacious in their opinions, and firm in their social relations, than those of country districts. On the other hand they are more intelligent; they are good listeners; appreciate argument and illustration; and their children flock to the mission schools. The rural population have been much more open to their instructions; the peasantry of large districts have been less bound by caste ties; and the aboriginal tribes and classes in the community, both in the hills and in the plains, have embraced Christianity in large numbers.

The

The religious movements which took place 40 years ago among the peasantry to the south of Calcutta, among the indigo ryots of Krishnaghar, and in the thickly-peopled swamps of Barisál, gave to the Province of Bengal three large Christian communities, which now number nearly 16,000 persons. They have been steadily cared for and well instructed, and have been consolidated into prosperous, well-conducted communities. Within the last 20 years the German mission among the Cole tribes in the hills of Chota Nágpur, now divided into two branches, has greatly affected these simple yet manly people; and, notwithstanding considerable social persecution, has led more than 20,000 persons among them to profess themselves Christians. Very recently the Santál tribes, in the same line of hills, have followed in their steps.

Converts in Bengal.

Among the Coles and Santáls.

In the year following the mutiny a new Mission was commenced by an American Society in the provinces of Oude and Rohilkhand; and the Christian congregations already include 2,000 converts. The largest congregations in the North West Provinces are found in Benares, Allahabad, Fathigarh, Agra, and Mirat (Meerut), and sprang from the boarding schools, established in the great famines of 1838 and 1861. An important religious movement has recently occurred in the dominions of the Nizam, under the conduct of native missionaries; and 1,100 persons have become Christians.

In Oudh and Rohilkhand.

In the Nizam's dominions.

A similar movement has taken place among the Telugu people of Ougole, under the American mission, which has resulted in 6,000 converts. More than 7,000 are now included in the two missions at Cuddapah; and the Telugu missions in Guatoor, in the Masulipatam district, and on the Godávari, have increased during the last few years from 1,500 native Christians to more than 6,000.

In the Telugu districts.

But it is in the southern portions of the Madras Presidency that Christianity has most largely affected the rural populations. The Province of Tanjor, first instructed by the Danish missionaries, amongst them by the respected missionary Schwartz, has long possessed a large number of Christian congregations. These continue under the care of the Lutheran and the English Episcopal missions, and are reported to be in a prosperous condition The Christians now number 11,000 persons in the Tanjor and Trichinapalli districts. In the neighbouring district of Madura the Americans have a flourishing misssion, with 7,000 converts and a normal school.

In Tanjor and Madura.

The Tinnevelli and Travancor missions are well known; and are reported to be in every way in a higher position, and exerting greater influence than ever before. These two provinces contain a very large aboriginal population, which has been but little affected by the Hinduism of Southern India. The Shanar tribe and their kindred, connect themselves by tradition with the great demon-ruler of Ceylon, the celebrated Ravana; and from the numerous and marked peculiarities of their social and religious life have proved a most interesting study to the missionaries who have lived among them. They have been under instruction from the commencement of the present century. Good schools have flourished among them, by which girls have benefited as well as boys. Training schools have supplied well-taught schoolmasters; theological schools have in recent years provided a full supply of Native ministers and clergy; while the congregations have steadily multiplied, and the character of the whole people has been raised. Three missions have been carried on among them by the Church Missionary Society, the Society for the Propagation of the Gospel, and the London Missionary Society, and a large and influential English staff has conducted the affairs of these missions. The result is reported to be highly satisfactory. At the present time, 90,000 persons of all ages are professing Christians among the Shanar people; the districts are dotted over with flourishing villages and Christian churches; there are hundreds of Native teachers employed among them, of whom fifty-six are ordained, and are supported to a great extent by their congregations. Order and peace rule these simple communities, which give the Government little trouble, whether in the Madras Presidency, or under his Highness, the Maharajah of Travancor; while large tracts of country have been brought under cultivation, and the peasantry generally enjoy a larger share of material comfort than in days gone by.

In Tinnevelli and Travancor.

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The Syrian Christians of Malabar.

Much the same may be said of the Church mission among the Syrians of Upper Travancor and Cochin. The congregations among them now include some 14,000 people, and the Syrian Christians at large have been greatly stimulated and improved through the efforts of the English missionaries carried on in their midst. Only one other mission needs special mention here, the

Mission in Burmah.

American mission in Burmah. This mission has drawn its converts chiefly from the Karen tribes, the aborigines of Burmah, and the Shan States, who have so heartily welcomed the English rule. Information respecting them has been scanty of late; but it is certain that 60,000 of them are Christian converts, and that the mission is largely supported by the people themselves.

Total number and importance.

Taking them together, these rural and aboriginal populations of India, which have received a large share of the attention of the missionary societies, now contain among them *a quarter of a million* native Christian converts. The principles they profess, the standard of morals at which they aim, the education and training which they receive, make them no unimportant element in the Empire which the Government of India has under its control. These populations must greatly influence the communities of which they form a part; they are thoroughly loyal to the British Crown; and the experience through which many have passed, has proved that they are governed by solid principle in the conduct they pursue. Dr. Hunter has recently set before the Government the importance of the hill races and other aborigines of India, reckoned at 70,000,000 in number, and both because of the simplicity of their habits, their general love of order, their teachableness, as well as their great numbers, has urged that new and large efforts shall be made for their enlightenment. In the same way many able missionaries advocate that the Christian efforts among them shall be increased. There is reason to believe that these estimable races will occupy a more prominent position in the Empire, in the future, than they have done hitherto.

General influence of missionary teaching.

But the missionaries in India hold the opinion that the winning of these converts, whether in the cities or in the open country, is but a small portion of the beneficial results which have sprung from their labours. No statistics can give a fair view of all that they have done. They consider that their distinctive teaching, now applied to the country for many years, has powerfully affected the entire population. The moral tone of their preaching is recognised and highly approved by multitudes who do not follow them as converts. The various lessons which they inculcate have given to the people at large new ideas, not only on purely religious questions, but on the nature of evil, the obligations of law, and the motives by which human conduct should be regulated. Insensibly a higher standard of moral conduct is becoming familiar to the people, especially to the young, which has been set before them not merely by public teaching, but by the millions of printed books and tracts which are scattered widely through the country. On this account they express no wonder that the ancient systems are no longer defended as they once were; many doubts are felt about the rules of caste: the great festivals are not attended by the vast crowds of former years; and several Theistic schools have been growing up among the more educated classes, especially in the Presidency cities, who profess to have no faith in the idol-gods of their fathers. They consider that the influences of their religious teaching are assisted and increased by the example of the better portions of the English community; by the spread of English literature and English education, by the freedom given to the press; by the high standard, tone, and purpose of Indian legislation, and by the spirit of freedom, benevolence, and justice, which pervades the English rule. And they augur well of the future moral progress of the Native population of India, from these signs of solid advance already exhibited on every hand, and gained within the brief period of two generations. This view of the general influence of their teaching, and of the greatness of the revolution which it is silently producing, is not taken by missionaries only. It has been accepted by many distinguished residents in India, and experienced officers of the Government; and has been emphatically endorsed by the high authority of Sir Bartle Frere. Without pronouncing an opinion upon the matter, the Government of India cannot but acknowledge the great obligation under which it is laid by the benevolent exertions made by these 600 missionaries, whose blameless

less example and self-denying labours are infusing new vigour into the stereotyped life of the great populations placed under English rule, and are preparing them to be in every way better men and better citizens of the great Empire in which they dwell.

Catholic missions.

The Catholic Missions in India are efficiently continued; but they are almost entirely confined to their Christian converts and have little to do with the non-Christian population. The missions are divided into two branches, those which maintain a connection with the Portuguese portion of the Church, under the Archbishop of Goa, and those which are under the vicariates of the Jesuit Mission. During the last 40 years both branches have been renewed and revived from the decay into which they had fallen, and seem to be well supplied with foreign as well as with native clergy.

The Goa Church has the largest number of its converts and followers in Bombay and its coast districts, in Travancor, around Madras, and in Eastern Bengal. The number in Bombay is not known; but in other parts of India they are about 48,000.

The vicariates of South India, which sprang from the celebrated Madura Mission, are 10 in number; they contain about 160 regular clergy, who are foreigners; and more than 400 native priests. The converts under their charge are reckoned at more than 600,000; of these 150,000 are in the district of Madura; 90,000 in the French district of Pondicherry, and over 250,000 in North Travancor. A few years ago a large secession took place from the last named mission. The fishermen on the coasts of South India, amongst whom St. Francis Xavier laboured with so much earnestness, still continue to profess the Christian faith, and regard him as their patron saint. There are six seminaries conducted by the Mission in South India, employed both as boarding schools for lads and as training schools for native priests. Two of these are at Virapalli, the head quarters of the Romo-Syrian Mission in Travancor; another is at Pondicherry, and a third at Negapatam was established through the earnest exertions of Father Clifford, though opened only after his lamented death. The number of the students in these institutions is not known; and very little information is given respecting the Catholic schools in India generally. A statement, however, giving the population and number of converts in the several vicariates, will be found in the Appendix. It was prepared for the recent Œcumenical Council at Rome.

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Border tribes.

THE frontiers of India, from the mouth of the Hub, on the shores of the Arabian sea, to where the Pakchan divides Tenaserim from Siam, are fringed by numerous tribes of various races inhabiting the Hala and Suleiman ranges, the valleys of the Himalayas, and its offshoots; while beyond them are the more powerful and settled States of Kelat, Afghanistan, Eastern Turkistan, Tibet, and Burma. Owing to the wild and predatory habits of the mountain tribes, which form a somewhat disorderly fringe round the skirts of our empire, there are frequent disturbances in one part or other of the long frontier line, requiring notice in an annual report. In the year under review the Lushai Expedition took place, which was organised for the purpose of checking the inroads of the wild tribes on the extreme eastern frontier, and to prevent a recurrence of outrages committed in the Cachar tea plantations in the spring of 1871. Two columns were formed, under the command of Generals Brownlow and Bourchier, the one to advance north from Chittagong, into the wild mountainous region, and the other south from Cachar. The objects of the expedition were to obtain the surrender of British subjects, and to establish permanent friendly relations with the savage Lushais, by convincing them that they had nothing to gain and everything to lose by placing themselves in a hostile position towards the British Government. Success depended more on the efficiency of the transport department than on any other contingency, and a corps of coolies was carefully organised.

Lushai Expedition.

The Cachar column, accompanied by 178 elephants and 1,200 coolies, marched from Tipai Mukh, on the frontier, in December 1871. The villages of

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the robber chiefs were occupied, fines were levied, and hostages taken. The troops returned to Cachar, after having made an advance of 110 miles from Tipai Múkh to the stronghold of Lalburah, the most powerful of the Lushai chiefs. The Chittagong column was chiefly composed of Gúrkha regiments. It assembled at its advanced base at Demagiri, on the river Kurnafali, in November, and thence advanced into the mountainous fastnesses of the Sailus and Haulongs. The latter had kidnapped a little girl, named Mary Winchester, from one of the tea plantations. The troops captured and burnt the strongholds of the hostile chiefs, with their stores of grain. The Haulongs then submitted, gave up Mary Winchester and all other captives, and engaged to live amicably with their neighbours in British territory, and to give free access through their country. The force returned to Chittagong in the end of February 1872, an advanced post being left with a garrison of a hundred local police.

Assam border tribes.

There has been little trouble with the other hill men on the eastern frontier, during the year under review. Several frontier districts are excluded from the operation of regular laws, and the Deputy Commissioner of Assam has an annual meeting of the hill tribes which fringe the upper valley of the Brahmaputra. Of these the Bhuteas, Abors, Mishmis, Miris, Singphus, Khamptis, and Nagas were most troublesome in former years, making frequent raids into the settled districts. The Abors are a savage race, but have given little trouble of late. The Mishmis annually come down to trade peaceably. The Miris (6,500) are on the banks of the Brahmaputra, and pay a capitation tax. The Nagas (2,865) in the southern hills, are now peaceable. The main object of having dealings with these hill people is to protect the low lands from their incursions.

The Nagas.

From 1854 to 1865 the Angami Nagas made 19 raids into the plains and killed 236 people; but in the latter year Lieutenant Gregory occupied a post in their country, and the raids have since ceased. A colony from another hill race, the Kukis, were also given some rent free land on the east side of North Cachar, in such a position as that they should form a screen between the Nagas and the plains. In May 1871 these Kukis made a raid against a Naga village, as they declared in self-defence, but Captain Butler conveyed to them an expression of the displeasure of the Government at their conduct.

Hill tribes.

The tribes in the Khasia, Jayanta (Jynteah), and Garo hills have been quiet, and there was only one attempt at a raid in the hill tracts of Chittagong. The hill tracts of Northern Arakan are inhabited by five tribes of Burmese physiognomy, but all speaking different languages, who have long been very troublesome. The Khamis and Miros are notorious for murder and rapine, as are the Khyns, in the hills which divide the kingdom of Burma from Arakan, who raid indiscriminately into British Burma and Burma Proper, armed with bows and poisoned arrows. Captain Hughes has been appointed to superintend these hill tribes of Arakan with satisfactory results, and order is being gradually introduced.

Tibet.

Beyond these Himalayan tribes, are the more powerful states of Central Asia, but that of Tibet, which lies on the other side of the eastern ridges, has always been sealed up by the jealous policy of its Chinese rulers. In 1869 Colonel Houghton, the Commissioner of Kúch Bahar, strongly recommended the policy of cultivating friendly relations with the Lamas, who are said to have great influence with our troublesome neighbours the Bhuteas. In any future treaty with China the subject of opening a trade route between India and Tibet is to be borne in mind, and meanwhile a letter was sent, in June 1871, by the Sikkim Raja to the Tibetan authorities. It was, however, returned unopened, and a more favourable opportunity will have to be taken hereafter. It is much to be regretted that intercourse should thus be sealed up between India and the Tibetan highlands, in this direction. As regards Nepal and Bhotan, the frontier lines are to be surveyed and clearly demarcated.

Punjab frontier tribes.

The frontier tribes along the Punjab and Sind frontiers have been tolerably quiet. There was one raid by the Akazais, in Hazára, in June 1871. In the Dera Ismail Khan district there was an attack upon a kafila of the Waziris by a party of the Bhittani tribe, in September 1871, and in February 1872 it was necessary to send a small force against the village of Dour, beyond the Banne frontier. From Hazára to Dera Ismail Khan the tribes are Patan Afghans, and thence to the sea they are of Baluch race. Beyond the Himalayas are the independent

Embassy to Eastern Turkistan.

independent states which intervene between British territory and the countries occupied by the Russians. To the east the Atalik Ghazi, ruling over Eastern Turkistan, has shown a strong desire to open friendly intercourse with India, and to promote trade. His envoy has recently been received by the Governor General, and an English return embassy, from which the best results may be anticipated. Shir Khan, the ruler of Afghanistan, is a cordial ally and friend of England, and the recent arrangement, by which the Russian Government has acknowledged the Amír's right to Badakshan and Wakhan, may have the effect of strengthening his position, and will be an additional motive for a continuance of loyal relations with the British Government. But during the year under review the territories of Shir Khan were not without internal trouble. During April 1871 his son Yakub Khan attacked Herat, obtained possession of the town by treachery in May, and killed his father's faithful servant Fateh Muhammad Khan. The young chief then came to Kabul, and appeared at his father's durbar, expressing great penitence, and in October 1871 was allowed to assume the governorship of Herat. Abdulrahmar Khan, son of Shir Khan's elder brother Afzul, remains in exile at Bokhara.

Afghanistan.

The Khan of Kelat is ruler of Baluchistan, a country which intervenes between India and Persia, and which, equally with Afghanistan and the Turkistan State, it is to the interest of the British Government to keep in a state of prosperity and peace; but unfortunately Baluchistan has long been torn by internal dissensions. The present Khan succeeded in 1857, and his dominions have ever since been the scene of almost unceasing disturbances, owing to the disaffection of the chiefs, and the designs of two of them, the Jan of Lus and the Chief of Kharan, on the throne. The feudal chiefs are losing their ancient power owing to the inevitable march of events, and the real cause of their turbulence is the sense of this change which is taking place. The presence of English power on the frontier has established peace, and has freed the Khan from the necessity of calling out the military strength of his nobles, while he receives a yearly subsidy, which enables him to increase the strength of his mercenaries, and to maintain an independent position. In March 1872 Sir William Merewether, the Commissioner of Sind, acted as arbitrator between the Khan of Kelat and his nobles, at Jacobabad. He decided that their forfeited lands should be restored to them, on condition that they were true in their allegiance to the Khan, and that they restored all property plundered from kafilas and cultivators, while they were in rebellion. This has restored peace, but time alone can remove the source of discontent. As between the Khan and his nobles, there can be no doubt that the former should be supported. A strong Government is necessary in Baluchistan, and a mere confederacy of chiefs offers no promise of stability.

Kelat.

While the Khan of Kelat has needed our friendly intervention on the western frontier of India, our neighbour in the far east has been a source of trouble from quite a different cause. The King of Burma has taken to trade, by ordering all piece goods to be sold direct to himself or to his agents, in quantities far in excess of the demand. He thus glutted the market, and brought ruin upon the bazaar people. He also made advances to the cultivators, to be repaid in produce, to such an extent that the merchants found great difficulty in purchasing rice, and the whole trade of the country was thrown out of gear. His Majesty appears to have engaged in these short-sighted operations to meet his own liabilities, but he has now yielded to the remonstrances of the Political Agent, and trade has returned into the old channels, accommodating itself to the laws of supply and demand. The King also sent an embassy to England without consulting the Political Agent, in the hope of opening a direct communication with Her Majesty's Government, and thus increasing his own importance. In this he was successful, for a letter arrived from Her Majesty the Queen, and was delivered to the King of Burma, at Mandalay, in April 1872. The Panthay embassy was less fortunate. An agency was established at Bhamo, on the Trawadi, in 1869, with the object of opening the old trade route with Western China, which had been closed by the civil war of the Panthays in Yunan. Major Sladen made an expedition from Bhamo, and was hospitably entertained by the Panthay Governor at Momain. This appears to have suggested to Sultan Suleiman, then the Panthay Ruler of Yunan, the policy of sending an embassy

King of Burma.

Burmese Embassy.

Panthay Embassy.

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to Europe, in the hope of opening a route by which he might receive material aid, in his struggle against the Chinese. The embassy consisted of his son and nephew, and they were in London in the summer of 1872; but they returned to Rangún without having succeeded in obtaining what they sought; and it is now reported than the Panthays in Yunan have been conquered by the Chinese troops. The news which reaches Bhamo is, however, most contradictory, and never to be relied upon.

Crowning of the Rangún Pagoda.

Another semi-political event connected with Burma, is the presentation of a new htee or umbrella to the Shwé Dagon Pagoda at Rangún, by the King of Burma, in October 1871. A htee is an ornament to crown a pagoda as a mark of reverence to Guatama Buddha. The present was brought down the Irawadi to Rangún, and consisted of seven successive circular tiers like inverted tambourines, diminishing in size and terminating in a spire. It is 47 feet high, and the lowest tier 13 feet in diameter, of iron, covered with plates of solid gold plating, studded with precious stones. It was valued at 62,000 *l.* A grand procession was formed, consisting of 50,000 orderly and well-conducted persons, to escort it to the great pagoda, which stands on three terraces or platforms on the spur of a hill, with the summit of the cone-shaped edifice 388 feet above the roadway. The whole of the labour and material for crowning the pagoda was gratuitously supplied by the people, and vast crowds flocked into Burma while the htee was being raised. The thousands of labourers, all arranged in white garments, with sacred white flags in their hands, displayed much earnestness and sobriety in their work; while the people kept holiday, and young girls scattered flowers and scented water, and distributed sherbet and lemonade. Throughout the whole period that the ceremony lasted, there was not only no increase, but an actual decrease, in the average number of offences at Rangún. There was a quasi-political significance supposed to attach to this event, because in 1755, and again in the year 1774, former Kings of Burma had asserted their sovereignty over Rangún, after suppressing rebellions, by the ceremony of crowning the Shwé Dagon Pagoda.

Native States.

No event of political importance has occurred in connection with the Native States within the boundary of British India, during the course of the year under review. As a rule their progress has been satisfactory. Among the

Pattiála.

Sikh States, the administration of Pattiála, Jind, and Nabha, is excellent. The Maharajah of Pattiála has taken the utmost interest in the progress of his country and the good of his people, and has introduced the English systems of revenue and of criminal procedure. A branch of the great Sirhind Canal will

Jind.

be under his direct management. The Rajah of Jind, who will also have charge of a branch of the Sirhind Canal, performs all important administrative work

Nabha.

himself, decides all cases, and conducts correspondence. The Raja of Nabha was only installed in August 1871, but he has shown considerable ability. The Nawab

Bháwalpur.

of the important State of Bháwalpur is a minor, and, during 1871-72, Captain Grey acted as Political Agent, and pushed forward the work on the inundation canals with much energy.

Katiwár.

In Katiwár, in a smaller degree, there has been the same sort of change going on ever since the country first came into contact with the British Government, as has already been referred to in Baluchistan. The chiefs, recognised by us, have gradually become more and more influential, at the expense of the subordinate chiefs of their own kindred, known by the generic name of Bhyads, and of the Mul Girassias or lessor landlords. A scheme was brought forward to settle these grievances, with the concurrence of the Katiwár chiefs. Estates were to be surveyed and settled in the hands of the Girassias, and a tribunal was to be established to settle questions in dispute between the chiefs and the Girassias or Bhyads. This tribunal, called the Rajasthanik Sabha, was to have a President chosen by the Government from among persons proposed by the chiefs. The plan has been approved by the Government of India, and is to be tried, in the first instance, for three years. Bhawnagar is the best governed of the Katiwár States.

Mysor.

In Mysor, the education of the Maharajah Chamarajendra Wadiyer Bahadur, who is nine years old, is making satisfactory progress under the guidance of Mr. Gordon, and meanwhile the country is administered by an English Commissioner,

missioner, the surplus revenue being set apart exclusively for purposes connected with the state of Mysor. The state of Travancor, in the extreme South of the Peninsula, with its revenue of half a million, is one of the best governed parts of India. The high school, at Trivandram, sends up candidates to the Madras University examinations, who have already obtained several bachelor's degrees; but the mass of the schools are closed to the lower classes. Public works have been zealously prosecuted, including the Wurkallai barrier cutting, and the road across the mountains into Madura. The palace expenditure is conducted with strict regard to economy; and the whole administration is admirably conducted. Sir J. Madava Rao, K.C.S.I., who has now resigned the office of Dewan of Travancor, was an able statesman, and the present prosperity of the State is due, in a great measure, to his judgment and integrity.

Travancor.

Some disturbance which took place, in the Punjab and the North West Provinces, during the year 1871-72, seem to indicate a disturbed and unsettled state of feeling among some classes of the community. An unorthodox sect of Sikh was founded about 25 years ago in Ráwal-pindi, by one Bálak Singh, who died in 1863. His principal disciple, Ram Singh, then became head of the sect. His teaching was moral and monotheistic; idol worship was prohibited, distinctions of caste forbidden, marriages of widows permitted, morality and sobriety enjoyed. Ram Singh was a man of considerable ability, son of a carpenter in Bhaini, a village of Ludhiána. He acquired a reputation for extreme sanctity, and even the possession of miraculous powers. As his influence and the number of his followers increased, the tendency of his teaching became more political. Opposition to idolatry began to take an active form, and there were many disturbances during fairs and gatherings of Sikhs, which were due to the intolerant behaviour of the Kúkas, as the followers of Ram Singh were called. On the 14th of June 1871, they attacked the Muhammadan slaughter-houses outside Amritsar, when four men were killed, and three wounded; and another attack was made at Raikop, in the Ludhiána district. On 14th January 1872, 200 Kúkas attacked the little town of Malod to obtain arms, in order to make an assault upon Maleir Kotla, a few miles to the southward. After a sharp fight, they were repulsed, but the Darogah of Malod and several others were killed. Troops were at once dispatched from Delhi, where the camp of exercise was assembled. Mr. Forsyth, the Commissioner of Ambalah, and the Raja of Putiala, who were both at Delhi, hurried back, and the latter caused Ram Singh to be arrested. The main body of Kukas, without leaders, became powerless, and the outbreak completely collapsed. The rebels took refuge in a jungle, where they were attacked by the Putiala troops, and surrendered; there were 68 prisoners, of whom 29 were wounded. When Mr. Cowan, the Deputy Commissioner, arrived at Maleir Kotla, there was a general panic among the people, and he thought that a severe example was necessary. He caused the whole of the prisoners to be blown from guns; and the Lieutenant Governor of the Punjab considered it right to uphold the action of his officers. The Government of India took a different view; Ram Singh has been banished to Burma, and the Kukas have since remained perfectly tranquil.

Kúka outbreak.

In the North West Provinces the outbreaks arose from religious fanaticism. The Muhammadan festivals are based on the lunar months, and vary from year to year, while those of the Hindus, though also depending on the moon, are brought into agreement with the solar year by the use of intercalary months. In 1870, the Mohurrum fell at the same period as the Ramnumi. The former celebrates the martyrdom of Hosein and Hassan, and the faithful mourn for them by carrying *tazias* or biers, in imitation of the biers of the murdered saints, and burying them outside the city. On the Ramnumi the Hindus rejoice at the birth of Rama, with much pomp and beating of drums, carrying the idol in procession from the temple to a grove outside the town, and performing sacrifices there. On the 9th of April 1870, these two great festivals occurred together, and angry feelings began to ferment in the town of Bareli, in Rohilkhand. The Government first proposed that one procession should take place in the morning, and the other in the evening, but this was not acceded to; separate roads were then marked out to the burial place of the

Religious disturbances in the North West Provinces.

Clashing of Muhammadan and Hindu festivals.

XIII. POLITICAL.

Riot at Bareli.

Tazias, and the grove of Rama; and the day passed over without any actual disturbance. In 1871, the Ramnumi fell on the 8th of Mohurrum, and the police of Bareli again arranged the two routes wide apart; but the blood of Muhammadans was up. The Rama procession was attacked, and, although the assailants were repulsed, the sacrificing priest was set upon on his way home, and murdered; tumults then broke out in the town of Bareli, when 17 persons were killed, and 158 wounded.

Riot at Pillibhit.

At Pillibhit, 30 miles from Bareli, the processions were arranged for different hours; but here again, the Hindu procession was attacked, one man being killed, and 26 wounded, and the police were obliged to fire on the rioters. At an extraordinary criminal sessions at Bareli, to try the rioters, five were sentenced to death, eight to transportation, and 48 to vigorous imprisonment.

Durbar at Murádabad.

In November 1871, the Lieutenant Governor of the North West Provinces held a great durbar at Murádabad, to which the principal Muhammadans of Rohilkhand were invited. He addressed them on the subject of the riots at Bareli and Pillibhit, and announced to them that he would not put a stop to processions, though in future they would not be allowed to pass through the main street of Bareli, but by lines indicated by the magistrates. He expressed a hope that the animosity of the past would be set aside, and that in future contention might be for precedence in the race of well doing and beneficence. He urged them to join the Hindus in a common endeavour to promote the spread of civilisation and the relief of want and distress; and quoted to them the lines of the poet Saadi:—

"The sons of Adam are members one of another,
"Framed by the Creator from one common essence."

Riot at Murádabad.

In 1872, the full moon or Huli of the Hindus fell with part of the Mohurrum; the Huli festival being a time of great rejoicing. Complete preparations were made by the police at Bareli, which prevented any disturbances. But at Murádabad, the mourning procession of the *tazias* was fixed for the morning; and the Hindu rejoicings were to take place in the afternoon. The Muhammadans of one of the *tazia* processions falsely declared that they had been attacked, and began to beat and plunder the Hindus, 14 being wounded, of whom two died; troops arrived, and 166 rioters were arrested, of whom 71 were sent for trial, four receiving sentence of death, two of transportation, and 32 of various terms of imprisonment. It is considered that this Murádabad outbreak was merely the work of lawless plunderers.

Fortunately the Mohurrum and Ramnumi will not fall on the same day again for 33 years; and the recurrence of these collisions between the two races is indefinitely postponed; for by that time some tendency may have been developed towards the state of feeling recommended at the Murádabad Durbar.

XIV. MILITARY.

XIV.—MILITARY.*

Military Force in India.

THE established military force of British India numbers 190,264, including officers; of whom about 123,470 are natives, and 60,632 English (exclusive of officers). Of the natives 47,000 belong to the army under the immediate command of Lord Napier of Magdala, 27,000 to the Madras Army, and 24,000 to that of Bombay. The British forces are chiefly stationed in the Punjab and along the valley of the Ganges. Three are 37,000 English soldiers in the Bengal Presidency, of whom 12,400 are in the Punjab; 10,400 are in the Bombay Presidency, and 11,200 in that of Madras; including the Nizam's territory and the Central Provinces.

Distribution of Forces.

It may be taken as a general rule that where English troops are stationed there will be a larger force of Native troops, in proportion to the difference between the numbers of British and Native troops in the whole force; but of course there are many smaller and less important posts where only Native troops are stationed. Throughout all Bengal proper, north and east of Calcutta,

* The details respecting the effective strength of the British army in this section have been taken from the Quarter Master General's returns for January.

MILITARY MAP
OF
INDIA
Scale of Statute Miles.
The Head Quarters of all the Commands are named, with the number of British and Native Troops attached to the whole Command. Subordinate stations are omitted. The coloured blocks are proportionate in size to the number of troops
British
Native
The three military divisions of India although named after the three old Presidencies, have not the same limits. The areas occupied by the three armies are coloured thus.
Bengal Army
Madras
Bombay
Sanitaria DALHOUSIE
TURKISTAN
JETISHAHR
(Eastern Turkistan)
CHINESE EMPIRE
Gobi or Great Desert
Plateau of Tibet
AFGHANISTAN
BALUCHISTAN
Indian Desert
BRITISH INDIA
NEPAL
BHUTAN
BARMAH
SIAM
THE DECCAN
ARABIAN SEA
BAY OF BENGAL
CEYLON
Laccadive Islands
Maldive Islands
Andaman Islands
Nicobar Islands
GULF OF CAMBAY
GULF OF SIAM
Northern Ghats
Mouths of the Indus
Mouths of the Ganges
C. Comorin
C. Negrais
Pt. de Galle
KARACHI
RAWUL PINDI
LAHORE
MIAN MIR
AMBALA
MULTAN
KILAT
HIRAT
AGRA
BARELI
LACKNOW
MORAR
ALLAHABAD
JABALPUR
NAGPUR
SURAT
BOMBAY
POONA
SIKANDARABAD
HAIDARABAD
BELGAON
BELLARY
BANGALOR
MADRAS
CANNANOR
TRICHINAPALLI
FORT WILLIAM
CALCUTTA
RANGOON
MULMEIN
BANKOK
SILIGURI
LASSA
SINING
YUNNAN
YUEN KIANG
KIANG HUNG
MANDELAY
BAMO
BAYANG
KHOTAN
KASHGAR
YARKAND
BOKHARA
BALKH
KABUL
Tarim Kul
Lob Nor
Tengri Nor
Brahmaputra R.
Ganges R.
Jumna R.
The Doab
Indus R.
Irrawaddy R.
Salween R.
Mekong R.
Yangtse Kiang R.
Yellow R.
Kistna R.
Godavery R.
Nerbudda R.
Tapti R.
Mahanadi R.
Cauvery R.
Kathiawar
Cutch
Sind
Punjab
Oudh
Bahar
Bengal
Assam
Berar
Khandesh
Guzerat
Malwa
Bundelkhand
Rajputana
Cashmere
Nepal
Sikkim
Bhutan
Cachar
Arakan
Pegu
Tenasserim
Martaban
Tavoy
Mergui
Ava
Shan States
Yunnan
Tali
Bamo
Mandelay
Kiang Hung
Bangkok
Mulmein
Rangoon
Calcutta
Fort William
Madras
Bangalore
Mysore
Cannanore
Trichinapalli
Bombay
Poona
Belgaon
Bellary
Sikandarabad
Haidarabad
Waltair
Nagpur
Jabalpur
Allahabad
Lucknow
Agra
Meerut
Delhi
Ambala
Lahore
Mian Mir
Rawul Pindi
Multan
Karachi
Surat
Kurrachee
Ceylon
Maldive Islands
Laccadive Islands
Andaman Islands
Nicobar Islands

cutta, and Asam, except a few men at the hill station of Darjiling, there is not a single European soldier. The peace of the eastern frontier districts is entrusted to 4,800 Native troops, without cavalry or artillery, and to local police.

Positions in the valley of the Ganges.

But up the valley of the Ganges the British infantry are stationed at regular intervals, 1,560 at Calcutta and Dum Dum, 910 at Hazáribagh, 739 at Dinapur, 395 at Benares, 783 at Allahabad, 831 at Cawnpur, 326 at Fathigarh, and 3,778 and 1,841 in Oudh and Rohilkhand. At Agra, Delhi, and Mirat (Meerut) there are 947, 476, and 581 respectively; while to the south of the Ganges valley 1,879 are stationed at Morar near Gwalior, 1,014 at Jabalpur and Sagar, and 431 at Jhansi. The rest of the British infantry are massed within the territory of the Punjab Government, 920 at Ambala, 672 at Jallandar, 434 at Lahor, 155 at Ráwal Pindi, 1,221 at Pesháwar, and 4,280 in the camp of exercise. Of the cavalry, the 10th Hussars are at Mattra, the 21st Hussars are at Lacknow, the 15th at Mirat (Meerut), the 11th at Ambala, the 4th Hussars and 5th Lancers at Ráwal Pindi and Siálkot, besides 20 regiments of Native Cavalry. The artillery are distributed in due proportions; four batteries in the Presidency District, six batteries in the Allahabad Division, five batteries in the Oudh Division, in the Ságar Division two batteries, in the Gwalior three, at Bareli one, in the Mirat Division six, in the Sirhind four, in the Lahor six, in the Ráwal Pindi and camp of exercise nine, and in the Pesháwar one. The whole artillery force consists of 10 batteries of horse artillery, 37 field guns and garrison guns.

Force in the Punjab.

British Cavalry.

Artillery.

Punjab Frontier Force.

The Punjab lies at the foot of those mountains whence India has been invaded from time immemorial, and here it is necessary that a considerable force should ever be on the alert, and that outposts should be stationed at the points where the passes open upon the plains. A large Punjab frontier force is placed under the orders of the Lieutenant Governor, numbering 12,400 officers and men; including 9,000 infantry, 2,800 cavalry, and 629 artillery. The infantry belonging to this force is composed entirely of Punjab, Sikh or Gurkha regiments, except 94 men of the 41st. The artillery, also, is all composed of native batteries, one Pesháwar and two Punjab mountain batteries, two other Punjab batteries, and the Hazára mountain battery. During 1871–72 two new outposts were established at the mouths of the Girni and Tanhi Zam Passes, in the Dera Ismail Khan district, to overawe the Masud Waziris. It was also necessary to send an expedition to Daur, beyond the Bannu frontier, in February 1872; but otherwise the unquiet tribes on the frontiers have been tolerably peaceable during the year under review.

Camps of Exercise.

For the last two years a force has been assembled, during the cool season, in a camp of exercise. In January 1872 the manœuvres took place in the neighbourhood of Delhi; and early this year the selected ground was at Hasan Abdul, between Attock and Ráwal Pindi. The camp of 1873 was composed of five regiments of British infantry numbering 2,000 men, the 4th Hussars and 5th Lancers numbering 740 men, 8,000 Native troops and six batteries of artillery, including two batteries of Native artillery belonging to the Punjab Field Force. There were about 14,000 men assembled altogether; but no official report on the subject of these camps of exercise has been received.

Troops in the Bombay Presidency.

The 10,000 British and 24,600 Native troops which form the effective force in the Bombay Presidency are stationed in Central India, along the West Coast, and Sind. In Central India there are 1,870 British infantry soldiers at Nasírabad, Mau, Indor, and Nimach, and 798 at Dísa. The principal Bombay military station is Púna, where there are 2,250 British infantry; at Bombay there are 470, at Sátára 211, and at Belgaum 974. In the Bombay Presidency there are two batteries of Royal Horse Artillery, 11 field and five garrison batteries. The only English cavalry regiment in the Bombay Presidency is the 3rd Hussars; but the three regiments of Bombay Native cavalry and the Púna Horse number 2,000 men. In Sind there are 950 British, and 2,000 Native infantry, and the three regiments of Sind Horse, with their head quarters at Jacobabad. The Aden force is composed of 637 British and 424 Native infantry, 159 gunners, and the Aden troop of horse (100 men).

Troops in the Madras Presidency.

The army under the Commander in Chief in the Madras Presidency numbers 39,292 men, including 24,000 Native and 8,800 British infantry, 932 Native and 906 British cavalry, two batteries of horse artillery, 12 field batteries and six batteries of garrison artillery. This force has to supply troops for the Central Provinces, the Nizam's Territory, Mysor, and Burma, as well as for the Madras Presidency.

XIV. MILITARY.

Presidency. The stations for English infantry are Kampti (Nágpur), in the Central Provinces, where there are 730, Sikrandabad 880, Belari 930, Bangalor 1,550, Madras 674, Trichinapalli 171, and the coast of Malábar 880. In British Burma there are 1,579 British soldiers but no cavalry. There are three corps not under the orders of the Madras Commander in Chief, the Nair Brigade in Travancor, which is a small force of Native infantry, six regiments of Mysor Sillahdar Horse, and the Haidarabad Contingent.

Distribution of British Infantry.

The geographical distribution of British infantry throughout India, shows 11,600 men along the valley of the Ganges from Calcutta to Ambala, 2,500 between Lahor and Peshawar, 6,800 in Central India, and 900 near the mouth of the Indus. Along the west coast, from Dísa to Belgaum, there are 5,500, besides 880 in Malabar. On the eastern side of the Peninsula, including Mysor and the Ceded Districts, the number is 3,300. There are no British troops south of Trichinapalli, but detachments of Native infantry are stationed at Paliamkota, Quilon, Trivandram, and Trichur. The railway system is now completed, and lines connect all the stations where British forces are stationed, excepting those in Sind.

Sickness and death rates.

Hill sanitaria.

During 1871, the number of deaths among the British troops was 1,065, the ratio of sick per 1,000 being 55·59.* The hill sanitaria, where there were in 1872 about 2,500 convalescents, are so placed in the mountains overhanging the chief military stations, throughout India, as to supply health resorts for the different divisions. Darjiling sanitarium is provided for the troops in Bengal; Naini Tal for Oudh and Rohilkhand; Landaur, Ránikhet, Chakrata, and Kasauli for the North West Provinces; Dalhousie and Marri for the Punjab. In Central India are Mount Abu and Puchmuri. For the Bombay Presidency there is the hill sanitarium of Púrandhar, and the seaside convalescent stations of Kolába and Ghizri Bande. Rámandrug furnishes shelter from the burning plain of Belary, and Jakatala on the Nilgiri hills is the sanitarium for the rest of the Madras Presidency.

Barrack accommodation.

The great mass of the British troops, however, have not been stationed in the hills, though such a disposition of them has often been suggested; one of the great practical difficulties being the want of carriage to get them down on the occasion of an emergency. They are posted at the points of greatest strategic importance throughout the country; and the construction of healthy permanent barracks thus becomes a question of paramount importance.

Barracks before the mutinies.

In former days the accommodation for English troops in India consisted of low narrow buildings but slightly raised from the ground, and unprotected by verandahs. The men messed in their sleeping rooms, with tables between the rows of beds. The first improvement consisted in the erection of some upper-storied buildings, both floors being occupied as dormitories, and afterwards special quarters were supplied for married men. In Fort William, a lofty barrack of this kind was erected, and another called the "Ellenborough Barrack," in the fort at Allahabad. During Lord Dalhousie's time much was done to provide British soldiers with more healthy accommodation. Very lofty one-storied barracks, with rooms 25 feet high, and separate messing accommodation, were built in the Punjab at Lahor, Silkot, Ráwal Pindi, Nauwshahra, and Peshawar. But the accommodation was incomplete even for the existing force of 45,000 men, before the mutinies. In 1857, additional European troops were thrown into the country, to the amount of 25,000 men; and there is a permanent increase, since the mutinies, of 16,000 men.

Permanent barracks to be built.

In 1863, the Government of India resolved to adopt a regular plan for completing permanent barracks for the whole British force, at an estimated cost of 10,000,000 *l.*, the expenditure of which was to be extended over a term of years.

Appointment of Colonel Crommelin.

Colonel Crommelin was appointed as Inspector General of Military Works, to assist in dealing with the various questions connected with construction of barracks, and he prepared a series of recommendations and memoranda as to the designs of the buildings, the size of the rooms, the space per man, and the number of storeys. Specimens were prepared for guidance, suitable to different parts of the country; the Army Sanitary Commission approved the designs; and, from 1864, the work has been proceeded with as rapidly as the estimates could be submitted and sanctioned.

Design for new barracks.

The main feature of the new barracks is that they have an upper storey, which

* Army Medical Department Report for 1871.

which is occupied as a dormitory, while the lower storey is set apart for mess rooms, libraries, orderly and store rooms. The height of the rooms in the upper storey is 16, and in the lower 20 feet, and the space per man is 90 superficial feet. The height serves as protection against the effects of radiation, and as a means of efficient ventilation, and is also necessary in the construction of the verandahs; for the provision of a row of clerestory windows above the verandahs is found to be very important. The original models have been generally adopted, but at Pesháwar and in Burma different descriptions of barracks have been built, and the plans have been modified in other places, according to the special requirements of the localities. In 1870, it was resolved that the order of confining the dormitories to the upper storeys need not be acted upon in dry climates, but only in damp situations, and where there is much rain. The old barracks have been utilised in the Punjab, and also those which were built immediately after the mutinies at Oudh; and other large barracks existing before the mutinies have been altered and adapted to present requirements.

It has been said that the upper storeys are excessively hot, but there is in reality no difference between the two storeys when the roofs are properly constructed. A number of thermometrical observations have been taken in all descriptions of barracks throughout India, and it is found that the temperature does not differ in lower or upper storied buildings. At night, indeed, when the dormitories are wanted, the upper storeys are cooler.

Barracks in hill stations.

In the hill stations a different, and much less expensive style of buildings has been adopted, with an allowance of 71 instead of 90 superficial feet per man. The barracks at Dalhousie, built in 1872, are single storey huts of stone with slate roofs.

Cost of new buildings.

The permanent barracks, though the original outlay for their construction is great, will largely reduce the heavy expenditure on repairs; while the estimated increase of cost is placed at one-seventh. Unfortunately there have been two serious failures in the new barracks at Ságar and Nasirabad, owing to the malconstruction of masonry, which will entail considerable additional expense.

Expenditure on barracks.

From 1862 to 1871 the expenditure on new buildings in the plains has been 2,592,205 *l.*, and on improving the old barracks, 1,920,737 *l.* On the hills the sum of 371,500 *l.* has been expended during the same period, on new and old buildings, to which, for all barracks, must be added a sum of 371,856 *l.* for 1871-72. The total expenditure on all military works whatsoever, including barracks, fortified posts, roads, drainage, water supply in cantonments, and roads to hill sanitaria, from 1862 to 1872, has been 10,800,000 *l.*, or an average of about a million a year. But permanent accommodation for about 5,000 British troops remains to be completed. During the last ten years, including the old barracks, the new accommodation supplied in the Bengal Presidency provides for 41,956 married and unmarried men. The original estimates have been unavoidably exceeded, owing to the great rise of rates of all kinds in the last ten years. The cost per man, including hospitals and buildings of every kind connected with the barracks, has been from 189 *l.* to 286 *l.* The cost of Chelsea barracks per man was 168 *l.* A further sum of about 1,250,000 *l.* is required to complete the permanent barrack accommodation for all the British troops in India. All troops arriving in or departing from India now pass through Bombay. In 1871-72 the number of mén that arrived in India was 9,206, and of officers 506. In the same year 4,179 men and 439 officers embarked for England, besides 2,294 invalids.

Shelter for native troops.

The native troops are generally expected to hut themselves in their own lines (an allowance, however, being made), but shelter has been furnished for them at Silang, Alipur, and several other stations, and in the hills for the Gurkha regiments.

Coast defences.

The defence of the wealthy seaports of British India against the attacks of any possible enemy is a question which, it is generally felt, should not be postponed until war actually breaks out or is imminent. Yet it is not altogether to be regretted that such defences have not been completed, and that where works have been commenced they are not so far advanced as to make an alteration in the plans very costly; for the science of attack and defence has been developed very rapidly of late years. The harbour defences of Bombay, as they were originally designed some eight years ago, consisted of six distinct

Bombay harbour defences.

XIV. MILITARY.

works. The most costly and important is the fort on the Middle Ground Shoal, in the midst of the anchorage, and 1,800 yards from the shore. There were to have been twelve 300-pounders on it, in iron-fronted casements, and two 600-pounders in a turret. The foundations of this work have been completed to a height of a few feet above high water. Another fort was to have been built on the Oyster Rock, a patch dry at high water near the south end of the anchorage, 1,000 yards from the shore, and 3,000 south-west of the middle ground. The foundations of this work have been completed and a temporary battery of eight 10 and 19-inch guns has been placed upon them. The third work is a battery on Cross Island, towards the north end of the anchorage, 1,000 yards from the shore, and 4,000 from the Middle Ground, to be armed with seven 300-pounders. The top of the island has been cut down, and a battery of six guns has been placed on the platform thus levelled. A tower on a shoal called the "twelve-foot patch," 4,000 yards north-east of the Middle Ground, is to have two 600-pounders, and the foundation of this work has been formed. There is an earthen battery with five 7-inch guns "en barbette," at Malabar Point, on the other side of Bombay Island, where is is proposed to erect a tower with two 300-pounders in a turret, for the defence of Back Bay; and at Kolába Point there is a battery armed with four 68-pounders "en barbette," and four 13-inch land service mortars.

Ironclads for Bombay.

Two iron-clad monitors, the "Abyssinia" and the "Magdala," specially designed to aid in the defence of Bombay Harbour, arrived there early in 1871; their armaments consist of four 10-inch guns in two turrets.

Colonel Jervois on the defence of Bombay.

Colonel Jervois reported upon this scheme for the defence of Bombay Harbour in April 1872. He pointed out that the numerous duties imposed upon a sea-going fleet render a dependence upon it for the defence of harbours unreliable; and that ports and coaling stations must, therefore, be rendered secure, independently of the action of a fleet. Monitors or floating batteries, although they are most valuable auxiliaries in conjunction with fixed defences, must not be exclusively relied upon. They afford an unsteady gun carriage, are liable to be penetrated by the guns of the present day, and may be ordered away from a particular post for general service. One important function of floating batteries would be to guard torpedoes at night, and prevent an enemy's boats from tampering with the mines, but this service would be as well performed by gunboats; and 18 suitable gunboats could be provided for the same cost as one monitor.

With regard to the scheme for the land defences of Bombay, Colonel Jervois has pointed out that an enemy might enter the harbour, passing 6,000 yards from the Oyster Rock, and take up a position 4,000 yards from the Middle Ground, and 5,200 from the Oyster Rock and the "twelve-foot patch," and thence shell the town or exact a few millions. An enemy should be prevented from entering the harbour at all. With this object Colonel Jervois recommends that forts should be built at the entrance of the harbour, similar to those at Spithead or Plymouth Sound, the depth being less than that on the side of the Plymouth Sound Fort, with a rocky bottom. He would build two such forts, circular, and each with 18 25-ton guns; one in 33 feet of water, 3,900 yards from Kolába Point, and the other on what is called the "10-foot patch," 4,000 yards west of the Coringa. They will be 5,400 yards from each other, and a fort on Kolába Point completes the line of defences. An enemy would be detained under their guns by electric torpedoes placed in the channel, and exploded by observation from the forts; while the two monitors and the three gunboats of the "Blazer" class, carrying 25-ton guns would complete the scheme. The cost of such a system of defences, including the gunboats, is estimated at 932,000 *l.*

Defence of Calcutta.

Batteries on the Hugli.

The approach to the rich city of Calcutta by the River Hugli, still remains undefended, but the question has been receiving very careful consideration. It has been proposed to erect a fort at Chingri-Khal, 40 miles above the entrance of the Hugli at Ságar, where the passage narrows to a channel, half a mile wide, close to the left bank, and another 15 miles higher up at Falta. A torpedo committee, with Colonel Hyde as president, which has been making experiments with gun cotton, and it recommended that five distinct systems of torpedoes should be placed at different points of the river, with gun boats to aid in the defence.

Colonel

CALCUTTA HARBOUR DEFENCES.

Scale of Nautical Miles
0 10 20 30 40

Serampur
Railway
Railway
CALCUTTA
Port William
Hugli R.
Howrah
Railway
Railway
Canning Town
Mutla R.
Bhul Khal
Fulta
(Proposed Battery)
Damodar R.
Pt Morrington
(Abandoned)
Hugli Pt
Diamond Harbour
Rupnarain R.
Chingri Khal
(Proposed Battery)
Cowcolly Light Ho.
F. 62 ft vis. 15m.
Sagar
Upr Floating Lt F.
Balasor
Roads
Western Channel
Eastern Channel
Lower Floating Lt F.
Lacam's Channel
Light F.
Swatch of no Ground
100 fathom Line
Pilots' Floating Lt F.
The Pilots' Ridge
20 Fathom Line
Pt Palmyras
False Pt
Lt F. 120 ft
vis. 18 miles.
BAY OF BENGAL

3 fathom line
3 fathom line
Trombay I.
BOMBAY I.
BOMBAY
Hog I.
Elephanta I.
Bunder
Frost I. (Battery)
Battery
Malabar Pt
Back Bay
17 feet Patch
Middle Ground Shoal
Fort
Dolphin Reef
Lt F.
Oyster Rock (Battery)
Battery
Kolaba Pt
Light Revolving 2 min.
Col. Jervois' 3 Forts
Inner Light Vessel Fixed Light
10 feet Patch
Carija I.
BOMBAY HARBOUR DEFENCES
Scale of Nautical Miles
0 1 2 3
Outer Light Vessel Red Fixed Light
5 fathom line
3 fathom line

Trel³ Saunders, India Office, 1873.

Colonel Jervois concurs in the proposal to construct batteries for powerful rifled guns at Chingri-Khal, and Falta, and in the scheme for employing submarine mines to detain an enemy under the fire of the guns from these works; and he also thinks it very desirable that gunboats, adapted for the defence of the Hugli, should be provided. Fort William will be looked upon as a secure arsenal or place of refuge in case of mutiny or a rising of the natives; the armament being three pieces on Moncrieff carriages to sweep the *maidan*, and two or three converted 64-pounders in each lower flank. The cost of the proposed works for the defence of the Hugli is estimated at 160,000 *l*. For the defence of Rangún Colonel Jervois recommends the construction of a battery at Chokèy Point, 14 miles up the river, where it takes a bend, so that the fort would be able to rake a vessel approaching from seaward, and another battery might be erected for the defence of the approach to Mulmein.

Colonel Jervois on the defence of the Hugli.

Rangún.

Mulmein.

At Aden the defences have been chiefly designed to guard against attacks from the land side, and the works on the isthmus leave little to desire. But in anticipation of an attack on the harbour, the western part of the peninsula should be converted into a strong defensive position, with a keep and three batteries.

Aden.

On the land side the borders of India are safe from attack, so long as a strong British force is massed in the Punjab, and the passes leading from Afghanistan are watched by the field force under the orders of the Lieutenant Governor. Still it is considered politic that a strong British garrison should be stationed at Pesháwar, numbering not less than 800 infantry. Works will at once be proceeded with, consisting of new barracks on a fortified position, with improved water supply, and every other appliance for preserving the health of the troops in a climate which has hitherto been found most prejudicial to Europeans.

Pesháwar.

Military service funds.

At the time of the transfer of the Government of India to the Crown, funds existed in the several Presidencies in India to which military and medical officers and chaplains in the service of the East India Company contributed. The object of some of these institutions was to provide pensions for the widows and children of subscribers, at their death, and of others to provide annuities for officers on their retirement from the service.

Soon after the transfer of the Government of India to the Crown, the subscribers were acquainted that if they were willing to transfer the assets, liabilities and management of the institutions unconditionally to Government, the Secretary of State for India in Council would guarantee to the subscribers and their families the benefits to which they were entitled under the regulations of the several institutions.

The following funds have been accordingly transferred to Her Majesty's Government, in accordance with the vote of the subscribers under the Act 29 Vict. c. 18, which was passed in 1866 to legalise transfers, and the business is carried on in the Military Funds Department of the India Office. The funds referred to are—

Bengal	Military Fund.
„	Military Orphan Society.
„	Medical Retiring Fund.
Madras	Military Fund.
„	Medical Fund.
Bombay	Military Fund.
„	Medical Retiring Fund.
Indian	Navy Fund.

Increase of benefits.

The valuations of, and reports on, several of these funds have, from time to time, been made by Mr. Samuel Brown, the well known actuary, and these have led the Secretary of State in Council to increase the benefits granted under the rules of the Bengal Military, and Orphan, and Bengal, Madras and Bombay Medical Funds. In the case of the Madras Medical Fund the increase was very considerable.

XIV. MILITARY.

New service fund.

In April 1871 Major General Hannyngton and Mr. Samuel Brown reported on General Norman's proposal for the establishment of a fund for the grant of pensions to the widows and children of military and medical officers and chaplains admitted into the service of the Government of India subsequently to the date on which the several Military and Medical Funds which have been transferred to Government were closed to new subscribers.

General Hannyngton's draft rules were approved, and the Government of India was authorised to create the fund, which came into operation on the 1st of January 1873.

The fund itself is founded on insurance principles, and the subscriptions and donations are therefore liable to alteration, the intention being to ascertain by periodical valuations that the payments are sufficient, and no more, to provide the pensions granted under the regulations. No burden will consequently be thrown on the revenues of India; nor, on the other hand, will they benefit by the institution of the fund, as the pensions will be granted in addition to those now allowed to Indian officers' families out of Indian revenues, under the Royal Warrant of 1855.

XV. SURVEYS.

XV.—SURVEYS.

The surveys of India.

THE surveys of India are now making steady progress towards the completion of the triangulation and of the mapping, for the first time, of the whole country. A general history of the operations of these surveys from the commencement will be found in the "Memoir on the Indian Surveys," published by order of the Secretary of State for India, in 1871, and in the two annual abstracts of the surveys for 1869-70 and 1870-71, which has since been issued. It will, therefore, be sufficient to give a brief account of their progress during the year under review. The great trigonometrical survey furnishes a basis for all geographical and topographical operations within the limits of the Empire, combined with geodetic investigations touching the figure of the earth and the length of its polar and equatorial axes. These investigations proceed *pari passu* with the trigonometrical and linear measurements, in order that the latter may be correctly utilised. A series of meridional and longitudinal triangulations are thus spread over India, as a skeleton which the topographical and revenue surveys fill in with useful details of mountains and rivers, towns and villages. The great trigonometrical survey is an undertaking of gigantic and imperial proportions, which has been steadily advancing towards completion, and increasing in scientific accuracy during the whole period included in the present century. It is over 70 years since Colonel Lambton began to measure the first base at Madras. Now the wonderful network is nearly completed, and the surveyors are bringing it to a termination by conducting their series through the wildest and most unfrequented districts of India. During the year 1871-72 the staff of the great trigonometrical survey was at work on five different series. It would be useless to enumerate these series without a map, but on the accompanying index chart the whole vast operation is displayed; and the uncompleted series, on which surveying parties are still at work, are clearly indicated.

The great trigonometrical survey.

Bider series.

The Bider longitudinal series* will be seen on the 18th parellel of latitude, with its unfinished end on the river Godávari, or its way to be connected with the Madras coast series. During the year under review, this Bider series was completed by the party under Mr. Rossenrode. They had to carry the great theodolite through a hilly and intricate country, covered with jungle and very thinly inhabited; where all the necessaries of life had to be brought from great distances. The jungle fires, which commence in February, added to their difficulties by obscuring the atmosphere and rendering observations impossible except at rare intervals. The precious but unwieldy instrument had

* The previous history of the Bider longitudinal series will be found in the "Memoir on Indian Surveys," p. 115, in the abstract for 1869-70, p. 11, and in that for 1870-71, p. 18.

BAY OF BENGAL
MADRAS
CEYLON
INDEX CHART
TO THE
GREAT TRIGONOMETRICAL SURVEY
OF
INDIA
SHOWING COLONEL LAMBTONS NET WORK OF TRIANGULATION IN SOUTHERN INDIA,
THE MERIDIONAL AND LONGITUDINAL CHAINS OF PRINCIPAL TRIANGLES,
THE BASE LINES MEASURED WITH THE COLBY APPARATUS,
THE LINES OF THE SPIRIT LEVELLING OPERATIONS,
THE ASTRONOMICAL PENDULUM & TIDAL STATIONS,
AND THE SECONDARY TRIANGULATION TO FIX THE PEAKS OF
THE HIMALAYAN & THE SOLIMANI RANGES
Completed to 1st May 1872
REFERENCES

COMPILED UNDER THE ORDERS OF COL. J.T. WALKER R.E. F.R.S. &c SUPERINTENDENT GREAT TRIGONOMETRICAL SURVEY OF INDIA AT DEHRA DOON, AUGUST 1870.

Engraved at the Surveyor Generals Office
Calcutta 1st 1872.

A Photo-lithographed Reduction, with the Spelling unrevised. India Office, London, 1875.

had to be carried up and down tortuous mountain paths strewn with large stones, and at times the man-eating tigers, which infest the footpaths and seize unwary travellers, took possession of the path that had been cleared for the theodolite, and delayed the advance of coolies for hours together. The people in this wild region could give little assistance. Steeped in ignorance and vice, they generally go naked, and men, women, and childern drink sago palm toddy to excess. But their wretched huts only occur at intervals of many miles. This very difficult piece of work was completed in the end of April 1872, when a junction was effected with the Madras coast series.

The Biláspur series.

The Biláspur meridional series connects the great longitudinal series, which crosses India from Karáchi to Calcutta, with the Madras coast series. It will be seen, on the chart, just issuing from the great longitudinal series, on about the 82nd meridian, with a line of country before it of the wildest character, including the upper part of the Mahánadi basin. It is intended to form a basis for the survey of the country between the parallels of Bombay and Calcutta; and was commenced in 1870 by Mr. Keelan. It has since been extended by the same surveyor, who, during the year under review, made an advance of 42 miles. His great difficulty was the total absence of all permanent buildings, the wild aborigines living in mere temporary huts; yet there were ruined temples, supposed to be Buddhist, hidden in the dense forest, and even the remains of large towns.*

The Bangalor series.

The Bangalor meridional series consists of a revision of Colonel Lambton's old work,† executed in the beginning of the century, from Cape Comorin, through Bangalor to Bidar, in the Nizam's territory; and is part of the Great Arc series which is left white on the chart. It was completed, during 1870-71, by Captain Rogers, who also fixed the important positions of Haidarabad and Sikandrabad.

The Mangalur series.

The Mangalur meridional series crosses the ghauts from Mangalur on the west coast to join the Great Arc series. A direct advance of 100 miles was made, under Major Branfill, and the triangulation was taken across the mountains.‡ There is an important geographical result from the results of this party's work in the previous. Dodabeta, on the Nilgiri Hills, has hitherto been supposed to be the loftiest peak in India, south of the Himalayas. It now turns out that a peak in the Animalley hills further south, is 8,837 feet above the sea, or 500 feet higher than Dodabeta. In the valley of the Brahmaputra, the triangulation of the Asam eastern frontier series was pushed to the eastward, in the face of great difficulties, the country being either covered with forest or with gigantic tropical grass.§ It was taken up, somewhat out of its turn, to supply points for the revenue survey operations.

The highest peak in South India.

Asam series.

Topographical surveys under the superintendent of the G. T. survey.

Kamaun and Garhwal survey.

Three topographical surveys are also being conducted, under the Superintendent of the Great Trigonometrical Survey, in the mountainous districts of Kamaun and Garhwal, in the sandy plains of Katiwár, and in Gujrát. The former work, during 1871-72, was progressing in the valleys of Mana and Niti, draining into the Alaknanda branch of the Ganges; and some of the stations had to be fixed at heights 17,000 feet above the sea.

The Katiwár series.

In Katiwár good progress was made, the old maps being found to be exceedingly incorrect, so much so that the Agent of the Bombay and Baroda Railway has entirely changed the line of route for the Katiwár branch since receiving sheets of the new maps. This is one out of many instances that might be given of the immense practical value of accurate surveys on scientific principles. The southern portion of the Gir range, in Katiwár, is one of the very few places in India where lions are still found. Captain Trotter, who commands the survey party, succeeded in shooting four. They are camel-coloured, and 8 feet 10 inches long from the nose to the tip of the tail. But there are said not to be more than 50 in the whole country.‖

Tidal

* For the previous history of the Biláspur series, *see* the Memoir on Indian Surveys, p. 115; the Abstract for 1869-70, p. 18, and that for 1870-71, p. 12.

† For the reasons for this revision, *see* the Memoir on Indian Surveys, p. 112.

‡ For the previous history of the Magalur series, *see* the Memoir, p. 115.

§ *See* Abstract for 1870-71, p. 17.

‖ *See* Extract of Indian Surveys for 1870-71, p. 19.

XV. SURVEYS.

Tidal observations.

Tidal observations have received much attention from Colonel Walker, and one of the officers of the survey, Lieutenant Baird, has made himself master of the practical details of the method of tidal registration, and the harmonic analysis of the observations, as practised and recommended by the British Association. The investigation of the laws of tides of the Indian Ocean, the utility of which was originally pointed out by Dr. Whewell in 1832, will thus, at last, receive the attention it deserves. A series of tidal observations was completed at Tutikorin in 1871–72, and sites were examined for tide gauges at Mangalor, and near Diu on the Katiwár coast.

Pendulum observations.

Latitude observations.

Levelling observations.

Preservation of trigonometrical stations.

Computations.

Cost of the Great Trigonometrical Survey.

The melancholy death of Major Basevi, while completing the important series of pendulum observations on the arctic plains of Tibet, made fresh arrangements necessary; and Lieutenant Heaviside has taken charge of the work, and will bring it to completion. There were also two parties occupied with latitude observations, and another taking a series of level in Northern India, which will eventually be extended over Madras and Bombay. Measures have also been taken for the preservation of the principal trigonometrical stations, the case of which has been entrusted to the local authorities. Very delicate and laborious calculations are made, year by year, and the publication of the results, in the form of photozincographed charts and maps, annual reports, tables of heights, and volumes of the final history of the survey, is regularly proceeded with. The whole cost of the Great Trigonometrical Survey, for 1870-71, was 61,865*l.*, or at the rate of 23*s.* per square mile for the trigonometrical work. But this estimate is no criterion of the value of the work done, unless there is also a knowledge of the nature of the operations in each instance.

Topographical surveys.

First party.

Second party.

Third party.

Fourth party.

Fifth party.

Sixth party.

Seventh party.

The rest of the topographical surveys are under the immediate superintendence of the Surveyor General. As they progress, the parties have to penetrate into wilder and more inaccessible regions. There are seven parties now in the field, and they are all at work in very wild country, much of it being altogether uninhabited, so that all the necessaries of life have to be carried from great distances. Yet a marked impression is being made on the unsurveyed area, which becomes smaller at the rate of 16,000 to 18,000 square miles a year. A rigorous system of checks is applied to each survey by test lines run through each plane table. One party, under Captain Holdich, is surveying the country round Gwalior. Another, under Mr. Girdlestone, is surveying the native States between the Narbada and the Tapti. A third is in Jeypur and the Vizagapatam Agency, under Colonel Saxton. A fourth, under Major Depree, in the district of Biláspur and Mandhah, in the Central Provinces. Captain Riddell, with the fifth party, is in Bhopál and Málwa. The sixth, under Captain Bagley, accompanied the Lushai Expedition. Captain Strahan, with the seventh party, was in Rájputána, exploring and surveying the Aravalli range of mountains, and his maps will be of great practical value in maturing projects now in contemplation for drainage works in Mairwára.

Work in the Surveyor General's Office.

There has been very great activity in the engraving, lithographing, and photozincographing departments of the Surveyor General's office at Calcutta. The remaining sheets of the Indian Atlas are now compiled, drawn, and engraved in India; and in addition to this work, which made good progress during the year, many useful general maps have been published, or are in course of preparation; among them a standard map of India, a new map of Bengal, and a map of the eastern frontier. During the year 1871-72 as many as 37,375 maps were issued by Colonel Thuillier's department. One of its most useful features is the rapidity with which the results of the surveys are made available for general use by the photozincographic process.

Revenue surveys.

Meteorological observations.

Geological survey.

Cost of the surveys.

The work of the Revenue Surveys has been referred to in the section of Land Revenue, and the arrangements for the registration and reduction of meteorological observations in that on Agriculture. The annual Report of the Superintendent of the Geological Survey is dealt with in the section on Mineralogy. The total annual cost of the entire Surveying Department, including the Great Trigonometrical, Topographical, and Revenue Surveys, is 240,000 *l.*

The

The Madras Observatory has been the centre of astronomical work during the British occupation of India. It was founded in the days of Sir Thomas Munro, and has ever since been directed by a succession of able astronomers,* whose series of observations extend from 1787 to 1873. Mr. Pogson, the present astronomer, continues to observe with most valuable results, but for some time his most important work must be the publication of observations already recorded, rather than the further accumulation of results. There are now 20,895 unpublished observations with the new transit circle. This year he records the extraordinary appearance of μ Argus, a star in the constellation of Argo Navis, which is believed to be a permanent furnace world, maintained by burning gases of totally different character to any with which we are acquainted. Mr. Pogson has also obtained a difference of longitude between Madras and Batavia, by exchanging signals along the electric submarine telegraph, with Dr Oudemans, the Surveyor General of Netherlands, India. But the chief work of the staff of the Madras Observatory, during 1871-72, was the observation of the total eclipse of the sun on 12th December 1871. Mr. Pogson's son, the Assistant Astronomer, had previously been sent home to study solar photography. Special instruments were sent out, and a village called Avonashi, on the railway to Coimbator, was selected as the place for observing. Three fair photographs were obtained during the totality, which verify the existence of a luminous envelope round the sun's disc, to a height of 160,000 miles, and show other interesting features. Mr. Winter, the Telegraph Engineer of the Madras Railway, at the same time made polarisation measurements of the corona. The same eclipse was observed at Utakamand, on the Nilgiris, by Colonel Tennant, assisted by Mr. Hennessey and Captain Herschel, of the Great Trigonometrical Survey, and Captain Waterhouse, an admirable photographer, from the Surveyor General's Office. Six photographs were taken during totality. Colonel Tennant's conclusion is that the corona is solar; it is the atmosphere of the sun mainly shining by reflected light.

Madras Observatory.

Publication of arrears.

Conduct of μ Argus.

Longitude by electric telegraph.

Eclipse of the sun.

In December 1872, Mr. Pogson detected the comet of Biela, at the Madras Observatory, under circumstances of extraordinary interest. This comet was first seen in 1772; but in 1826 Mr. Biela discovered it again, when the orbit was carefully calculated, and the results showed that it revolved round the sun in about $6\frac{3}{4}$ years. In 1832 it returned with the utmost punctuality; and again in 1846, it separated into two, each complete, with a short tail of its own, 150,000 miles apart. The phenomenon produced a profound sensation among astronomers. It, and its companion, were again seen in 1852, but 1,250,000 miles apart.

In 1859 it was due, but was too near the sun's position to be found; and, in 1866, it could not be found; it was missing. It was next due, agreeably to its former orbit, in October 1872. On November 30th, Mr. Pogson received a telegram from Professor Klinkerfues, of Gottingen: "Biela touched earth "on 27th; search near θ Centauri." Mr. Pogson searched day after day, and on the 3rd he found the comet, securing four comparisons of it with an anonymous star. The lost comet was re-found, but it had no tail. Next morning, December 4th, it was again seen, and with a short tail; it appears actually to touch the earth somewhere in latitude 33° south, and neither the earth nor the comet were conscious of the collision.

Detection of the comet of Biela.

In the Kolába Observatory at Bombay, under the direction of Mr. Chambers, the principal work consists in the production of perpetual records of the phenomena of meteorology and terrestrial magnetism, regular determination of time by astronomical observations, and its communication to the shipping by daily signal. A new volume of the observations from 1865 to 1870 has recently been issued.

Kolaba Observatory.

Between 1862 and 1865, Lord Canning employed General Cunningham on an archæological survey of India, and much valuable work was done; but Lord Lawrence abolished the appointment. In December 1870 it was revived, and General Cunningham resumed his interrupted labours. In the conduct of this

Archæological survey.

* For the history of the Madras Observatory previous to 1871-72, *see* the Memoir on the India Surveys, p. 238, and the Abstract for 1870-71, p. 51.

XV. SURVEYS.

this important survey, which is of as much interest and value to the science of comparative geography as to that of archæology, he has divided it into five provinces of nearly equal size; the Punjab, the North West Provinces, Bengal, Madras, and Bombay. These provinces are again divided into three sections each, to be explored by one party in a single season. Not more than one-half of the archæological remains of India are now known to us, and inquiries and explorations will lead to fresh discoveries. The regular archæological survey was commenced in October 1871, under General Cunningham's personal superintendence, Mr. Beglar, an excellent photographer, and Mr. Carlleyle, the Curator of the Riddell Museum at Agra, will be the General's assistants.

During the summer of 1871, General Cunningham was superintending the reprint of his Archæological Reports made from 1862 to 1865, for the illustration of which he prepared 99 plates with his own hand. In the winter of 1871-72, he made researches in the Gangetic Valley, and Mr. Beglar and Mr. Carlleyle were at work in Delhi and Agra. The new and valuable information thus collected will form Vols. III. and IV. of the Proceedings of the Archæological Survey. General Cunningham explored many ancient places in the Punjab in 1872-73, and he proposes to make a survey of the Central Provinces in 1873-74. The time required to complete an archæological survey of the whole of India will extend over 10 or 12 years.

Archæology in Bombay.

It is proposed to appoint Mr. James Burgess, an eminent antiquary, to the superintendence of the Archæological Survey of the Bombay Presidency. He has already drawn up a memorandum on the architectural and archæological remains in the Bombay Presidency, and in the territory of the Nizam. But

Paintings at Ajunta.

the most interesting piece of archæological work in Western India that has been undertaken during the year under review, has been the measures for replacing the grievous loss caused by the destruction of the oil-colour copies of frescos in the Ajunta Caves, in the fire at the Crystal Palace at Sydenham. The Government of India has sanctioned an expenditure of 500 *l.* with this object. Mr. Griffiths, the Decorative Artist, in the School of Arts at Bombay, who is an artist of no ordinary merit, was deputed to report upon the state of the frescos. He found the paintings in a most deplorable condition, wantonly defaced and hacked, with water percolating through the rock, and converting them into black unintelligible masses. Yet there are many fragments worthy of being copies, which, in a few years, will be entirely obliterated. Mr. Griffiths formed a high estimate of their value, and says, "These old Buddhist artists were keenly alive to the pleasures derived from, and thoroughly understood, the principles of decorative art, in its highest and noblest sense."

Geographical exploration.

During the year exploring work beyond British India has been executed both beyond the Himalayan peaks, and in Persia. In the former direction Major Montgomerie employed a native explorer, who succeeded in opening out the geography of a very large tract of country, as to which we had previously had but the vaguest conjectural indications.

Explorer No. 9.

These explorers are anonymous, and are carefully drilled to observe for latitude and elevation above the sea. The explorer of 1871-72 is known to the world as No. 9. His route led round the great Mount Everest, penetrating on the north to the Sanpu River, and thence south-west over the Tingri-maidan, the most extensive plateau on the south of the Himalayan watershed that is drained by streams flowing direct into India. The route taken by No. 9 corresponds, for some distance, with that of Dr. Hooker to the rest of Darjiling. The new ground commences with Dr. Hooker's most north-westerly point, and includes a large lake which had not previously been indicated on the maps. The positions of many peaks north of those which are visible from the side of India have been determined, as well as that of the celebrated Sakya Monastery. The route traversed by No. 9 is 844 miles long, 550 of which are over entirely new ground, and it elucidates the geography of the basin of the Arun, the largest feeder of the great Kosi River, which drains the whole of Eastern Nepal. The explorer took latitude observations at 11 points, and determined the height of 31 places.

During the years 1870-71 geographical information of great importance was obtained in Persia and Baluchistan by the frontier commissions, under Sir Frederick

Frederick Goldsmid. Early in the former year, Major Beresford Lovett, R.E., made route surveys from Gwadur to Bampur, thence to Paujgur, and back again to Gwadur. Much valuable work was also done in the same region by Lieutenant Colonel Ross, Political Agent at Gwadur, and Quartermaster Serjeant Bower, R.E.

Persia and Baluchistan.

Sir F. Goldsmid's frontier survey.

Major Lovett's work.

Colonel Ross's work.

In the winter of 1871-72 Major Lovett surveyed the country from Bam in south-eastern Persia to Sistan, made a detailed map of that little known region, and thence continued his route surveys to Meshed, by the hitherto unvisited road through Birjand and Kaian, and from Meshed to Tehran.

Major Lovett's work in 1871-72.

Major St. John, R.E., was at the same time sent as special commissioner to complete the settlement of the Perso-Baluch frontier, of which he made a careful survey from the sea to Jalk on the edge of the deserts, a place previously unvisited by Europeans. He travelled thence, *viâ* Bampar, Bam, and Kerman, to Shiraz, surveying as he went. He was accompanied by Mr. W. T. Blanford, of the Geological Survey of India, who not only made geological notes of the country traversed, but a magnificent collection of the fauna. Both are of especial value in bridging over the gaps which has hitherto existed between the zoology and geology of India and the Mediterranean countries. Mr. Blanford's report will be published by order of the Secretary of State.

Major St. John's work.

Mr. Blanford's geological investigations in Persia.

Latitudes of numerous stations were fixed astronomically by Majors St. John and Lovett, and a large number of altitudes ascertained by aneroid and hypsometric observations. Altogether, their work embraces 4,500 miles of route, and 140,000 square miles of country, of which two-thirds, or an area equal to Great Britain, was previously unknown to science.

Astronomical observations and extent of new surveys in Persia.

Both officers are now engaged at the India Office in putting the results of their labours on paper, and when these are complete, Major St. John will prepare from them, and other earlier data, a map of Persia on an adequate scale. This will supply a want which is daily more felt, existing maps being in a very small scale, and full of inconsistencies and inaccuracies.

New map of Persia.

Besides the new map of Persia, Captain Felix Jones of the late Indian Navy, is engaged, under orders from the Secretary of State, on the preparation of a map of Western Asia, including the valleys of the Euphrates and Tigris, from the materials accumulated by the surveyors of the Indian Navy and other observers. A large mass of hitherto neglected material will be utilised, and a most valuable map will be the result. The map will consist of four double-elephant sheets. The first, or N.W. sheet, includes the range of the Taurus and the watersheds of the Euphrates and Tigris, from Erzeroum to the northern slopes of the Lebanon. The second, or N.E. sheet, will extend from Erzeroum to the frontiers of Russia, Persia, and Turkey around Ararat, and the Turco-Persian frontier, as far as the Fak-i-Gyrra Pass in Persian-Turkistan. The third, or S.W. sheet, will embrace Syria, south of the Lebanon, to the Suez Canal and Mount Sinai, besides a portion of the Euphrates. The fourth sheet takes in Mesopotamia to the Persian Gulf, and the rest of the Turco-Persian frontier. Captain Felix Jones has nearly completed the first, second, and fourth sheets in outline, and has finished the portions covered by the Mesopotamian Surveys, and the Turco-Persian frontier map. The third sheet will contain the new work now in progress under the auspices of the Committee of the Palestine Exploration Fund.

New map of Western Asia.

APPENDIX.

—No. 1.—

TABLE showing the Numbers and Density of POPULATION, AREA, and MILEAGE of COMMUNICATIONS, &c., compiled from the Census Returns and Administration Reports for 1871–72.

DIVISIONS.	Date of Census.	Population.	Agriculturists.*	Non-Agriculturists.*	Area in Square Miles.	Cultivated.	Culturable.	Waste.	Mileage of Communication.			Density of Population per Square Mile.
									Water.	Road.	Rail.	
BENGAL - - - -	Early part of 1872 -	36,769,735	7,259,618	4,383,453	85,483†	- -	- -	- -	-	-	-	430
BAHAR - - - -	- ditto - -	19,736,101	3,613,231	2,489,557	42,417†	- -	- -	- -	-	-	-	465
ORISSA - - - -	- ditto - -	4,317,999	819,251	507,044	23,901†	- -	- -	- -	-	-	-	180
ASAM - - - -	- ditto - -	2,207,453	526,084	113,267	35,130†	- -	- -	- -	-	-	-	63
CHOTA NAGPUR - - -	- ditto - -	3,825,571	836,134	280,712	43,901†	- -	- -	- -	-	-	-	87
LOWER PROVINCES - - -	Early part of 1872	66,856,859	13,054,318	7,774,033	230,832†	- -	- -	- -	-	-	-	290
NORTH WEST PROVINCES -	1872 - - -	30,769,056	17,740,785	12,005,876	80,901	38,141	12,253	30,130	3,725	21,818	931	380
OUDH - - - - -	February 1869 -	11,220,747	6,543,296	4,677,451	23,973	12,673	5,588	4,781	1,678	4,225	72	465
PUNJAB - - - - -	1872 - - -	17,611,498	9,121,546	8,489,952	101,752‡	32,706‡	22,433‡	46,613‡	-	-	-	173
CENTRAL PROVINCES - -	1872 - - -	9,066,038	4,796,249	4,269,789	84,162	23,490	27,910	33,243	1,674	2,071	466	108
BERAR (HAIDARABAD ASSIGNED DISTRICTS).	November 1867 -	2,231,565	1,369,058	862,507	16,960	- -	- -	- -	-	-	-	132
BRITISH BURMA - - -	Administration Report, 1871–72.	2,562,323	402,757	2,159,566	93,664	3,451	36,204	48,258	6,045	814	-	27
MADRAS - - - - -	1872 - - -	31,311,142	- -	- -	141,746	- -	- -	- -	-	-	-	220
MYSOR - - - - -	1872 - - -	5,055,412	1,790,044	2,632,165	27,077	9,106	4,498	13,399	-	3,072	48½	187
CURG - - - - -	1872 - - -	168,312	63,668	50,021	2,000	163	122	1,715	-	-	-	84
BOMBAY - - - - -	1872 - - -	14,042,596	- -	- -	127,532	- -	- -	- -	-	-	-	110

* The numbers of Agriculturists and Non-Agriculturists are taken from statistics given in the Administration Reports. In the case of the Lower Provinces of Bengal, male adults alone are included in these categories.
† Exclusive of waste and forest lands and areas of great rivers.
‡ Exclusive of area in Bannu district.

— No. 2. —

GENERAL ACCOUNT of the REVENUES and CHARGES, and RECEIPTS and DISBURSEMENTS of the Government of *India*, in *India*, and in *England*, for the Year ended 31st March 1872.

ITEMS.		India.	England.	TOTAL.
		£.	£.	£.
BALANCE, 1st April 1871		16,818,743	3,305,972	20,124,715
REVENUE		49,888,552	221,663	50,110,215
Net Traffic Receipts from Guaranteed Companies:	£.			
Net Traffic Receipts in India	2,923,576			
Less amount repaid to East Indian Railway as Surplus Profit	54,628			
		2,868,948	—	—
DEBT:				
Permanent Debt incurred		17,465,277	*1,413,406	18,878,683
Temporary or Floating Debt incurred		—	—	—
Treasury Notes bearing Interest issued to Service Funds.		164,065	- -	164,065

ITEMS.			India.	England.	TOTAL, less Net Traffic Receipts of Railways.
			£.	£.	£.
EXPENDITURE, ORDINARY			37,282,803	7,980,017	45,262,820
Guaranteed Interest on Railway Capital			45,930	4,546,236	—
		£.			
India	45,930				
England	4,546,236				
	£.	4,592,166			
Deduct,—Net Traffic Receipts		2,868,948			
	£.	1,723,218			
CHARGE ON INDIAN REVENUES FOR GUARANTEED INTEREST.			- -	- -	1,723,218
TOTAL Ordinary Expenditure and Guaranteed Interest, less Net Traffic Receipts			- -	- -	46,986,038
EXTRAORDINARY EXPENDITURE (Irrigation Works and State Railways).			1,480,797	147,677	1,628,474
TOTAL EXPENDITURE, AFTER DEDUCTION OF NET TRAFFIC RECEIPTS			- -	- -	48,614,512
DEBT:					
Permanent Debt Discharged			16,307,360	5,000	16,312,360
Temporary or Floating Debt paid off			—	—	—
Treasury Notes of Service Funds paid off			104,008	- -	104,008

Receipts of Service Funds bearing Interest -	932,628	- -	932,628	Payments out of Deposits of Service Funds bearing Interest.	971,115	- -	971,115
Savings Bank Deposits received - - - -	750,434	- -	750,434	Savings Bank Deposits Repaid - - - -	599	—	—
Provincial Services and Local Funds -	9,981,605	- -	9,981,605	Provincial Services and Local Funds - -	9,637,237	- -	9,637,237
Deposits, Advances, &c.:				**Deposits, Advances, &c.:**			
Deposits - - - - - - - - -	5,042,651	- -	5,042,651	Deposits - - - - - - - - -	5,523,241	- -	5,523,241
Repayment of Advances - - - - - -	3,193,718	5,562	3,199,280	Advances Repayable - - - - - -	3,086,150	8,434	3,094,584
Repayment of Sums advanced on Loan to Municipalities, Native States, &c.	46,837	- -	46,837	Advances by way of Loan to Municipalities, Native States, &c.	464,048	- -	464,048
Receipts on account of Railway Capital - -	28,885	3,689,096	3,717,981	Remittances between districts - - - -	566,929	- -	566,929
Remittances between Districts - - - -	253,487	- -	253,487	Payments to Railway and other Guaranteed Companies, out of Capital Funds.	1,126,696	2,499,011	3,625,707
Miscellaneous - - - - - - - -	2,693,550	—	—	Miscellaneous - - - - - - - -	2,719,245	- -	2,719,245
Accounts between Presidencies:				**Accounts between Presidencies:**			
Amounts of Bills drawn, Remittances of Treasure Advances recovered.	18,736,709*	- -	18,736,769	Amounts of Bills Paid, Remittances of Treasure, Advances made.	18,198,093	- -	18,198,093
Accounts between India and England:				**Accounts between India and England:**			
Advances and Supplies, amount received from British Exchequer on account of Advances in India, Receipts in India for British Exchequer, Bullion from India, amount received for Bills drawn by Secretary of State on Indian Treasuries.	1,194,891	11,410,612	11,605,503	Advances and Supplies, Advances on Navy Bills, Payments in England on Account of Receipts in India, Payments in India on Account of Secretary of State's Bills.	9,950,522	1,038,845	10,989,367
				Balance, 31st March 1872 - - - - -	21,997,715	2,821,091	24,818,806

	£.		£.
Income - - - - - - - - - - - - -	50,110,215	Income - - - - - - - - - - - - -	50,110,215
Ordinary Expenditure - - - - - - - - - -	46,986,038	Total Expenditure - - - - - - - - - - -	48,614,512
Excess of Income over Ordinary Expenditure - - - - £.	3,124,177	Excess of Income over Total Expenditure - - - - £.	1,495,703

* Sale of proceeds of 1,390,000 *l.*, India Four per cent. Stock.

— No. 3. —

GENERAL ACCOUNT showing the ORDINARY REVENUE and ORDINARY EXPENDITURE of *British India*, for the Year ended 31st March 1872, as compared with that for the Year ended 31st March 1871.

REVENUE.	Amount for 1871-72.	As Compared with 1870-71.	
		Increase.	Decrease.
	£.	£.	£.
Land Revenue	20,520,337	-	102,486
Tributes and Contributions	744,036	24,615	—
Forests	501,924	48,482	—
Excise on Spirits and Drugs	2,369,109	-	5,356
Assessed Taxes	825,241	-	1,246,784
Customs	2,575,990	-	34,799
Salt	5,966,595	-	139,685
Opium	9,253,859	1,208,400	—
Stamps	2,476,388	-	33,983
Mint	96,128	62,728	—
Post Office	820,894	15,659	—
Telegraph	206,580	-	20,822
Law and Justice	373,160	-	373,738
Police	Transferred to Provincial Services.	-	270,971
Marine	194,925	-	138,220
Education	Transferred to Provincial Services.	-	61,610
Interest	327,906	30,191	—
Miscellaneous (includes Receipts in Aid of Superannuation, Retired, and Compassionate Allowances).	920,701	-	164,128
Army	889,340	-	54,345
Public Works:			
Ordinary	87,519	-	31,615
Irrigation	471,580	-	13,957
Railways:			
Guaranteed	262,629	-	40,703
State	3,766	-	3,810
		1,390,075	2,737,012
			1,390,075
TOTAL REVENUE, INDIA - £.	49,888,552		1,346,937
Receipts in England	221,663	43,466	
			43,466
TOTAL REVENUE, INDIA and ENGLAND - £.	50,110,215	Net Decrease	1,303,471

EXPENDITURE.	Amount for 1871-72.	As Compared with 1870-71.	
		Increase.	Decrease.
	£.	£.	£.
Refunds and Drawbacks	285,537	-	70,894
Land Revenue (includes Allowances to District and Village Officers).	2,428,319	5,463	—
Forest	350,566	-	22,783
Excise on Spirits and Drugs	135,347	-	158,130
Assessed Taxes	29,566	-	14,425
Customs	184,921	-	2,070
Salt	470,178	80,214	—
Opium	1,595,694	-	418,731
Stamps	88,416	-	13,194
Mint	77,978	18,446	—
Post Office	616,115	3,074	—
Telegraph	366,012	-	14,576
Allowances and Assignments under Treaties and Engagements.	1,705,174	-	32,463
Administration	1,234,681	81,489	—
Minor Departments	227,517	14,620	—
Law and Justice	2,267,444	-	728,746
Police	Included under Provincial Services.	-	2,275,335
Marine	376,705	-	98,897
Education	Included in Provincial Services.	-	624,690
Ecclesiastical	155,611	2,067	—
Medical	174,807	-	348,679
Stationery and Printing	Included under Administration and Provincial Services.	-	233,675
Political Agencies	266,442	-	25,017
Superannuation, Retired, and Compassionate Allowances.	609,312	-	46,657
Miscellaneous	337,209	-	277,357
Loss by Exchange on Remittances to Home Treasury.	395,964	-	
Allotments for Provincial Services	4,848,205	4,648,205	—
Army	12,036,098	-	513,205
Public Works, including Supervision and Cost of Land for Guaranteed Railways, Loss by Exchange on Railway Transactions, and State Railways.	2,489,722	-	1,589,328
Interest on Permanent and Floating Debt.	3,032,672	72,542	—
Interest on Service Funds and other Accounts.	496,591	-	33,900
		4,926,120	7,542,752
			4,926,120
TOTAL, INDIA - £.	37,282,803	-	2,616,632
Expenditure in England	6,730,977	—	40,323
Expenditure in England for Stores transmitted to India.	1,249,040	-	176,110
Guaranteed Interest on Railway Capital, less Net Traffic Receipts.	1,723,218	-	111,593
TOTAL, INDIA and ENGLAND - £.	46,986,038	-	2,944,658

—No. 4.—

TABLE showing the TRADE of *India* with FOREIGN PORTS during the Year 1871-72, taken from the Trade and Navigation Accounts compiled by the Finance Department of the Government of *India*.

	IMPORTS.			EXPORTS.			SHIPPING.			
							Entered.		Cleared.	
	Merchandise.	Treasure.	TOTAL.	Merchandise.	Treasure.	TOTAL.	Vessels.	Tons.	Vessels.	Tons.
	£.	£.	£.	£.	£.	£.	*No.*	*No.*	*No.*	*No.*
Bengal Presidency - - -	15,739,815	4,001,605	19,741,420	27,627,730	221,597	27,849,328	821	802,023	870	841,531
Chief Port, Calcutta - -	15,667,235	4,001,605	19,668,840	27,477,129	241,148	27,718,277				
Madras Presidency - - -	3,129,578	662,654	3,792,232	7,006,227	291,097	7,297,324	3,497	493,372	3,738	571,728
Chief Port, Madras - - -	2,615,078	450,030	3,065,108	2,640,344	260,723	2,901,067				
Bombay Presidency - - -	10,432,058	6,843,049	17,275,106	24,954,791	944,448	25,899,239	865	583,688	792	498,853
Chief Port, Bombay - -	10,792,758	6,843,049	17,635,807	24,121,108	895,028	25,016,136				
Sind Province - - - -	391,079	18,066	409,145	806,346	2,566	808,912	293	48,412	270	46,266
Chief Port, Karachi - -	390,150	17,981	408,131	805,234	2,566	807,800				
British Burmah - - - -	1,391,217	48,439	1,439,656	2,790,752	16,384	2,807,136	685	359,753	739	404,885
Chief Port, Rangún - - -	1,827,673	19,228	1,346,901	1,705,340	6,103	1,711,443				
TOTAL British India - - -	31,083,747	11,573,813	42,657,560	63,185,847	1,476,093	64,661,940	6,161	2,287,248	6,409	2,363,263

— No. 5. —

TABLE showing the PRINCIPAL ARTICLES IMPORTED into *British India* during the Year 1871–72, taken from the Trade and Navigation Accounts prepared by the Finance Department of the Government of *India*.

ARTICLES.	Quantities as far as can be stated.	PRESIDENCY OR PROVINCE.	VALUE.	TOTAL VALUE.
	Lbs.		£.	£.
Cotton Twist and Yarn	28,853,890	Bengal	977,767	2,473,353
		British Burmah	250,922	
		Madras	718,326	
		Bombay (including Sind)	526,337	
Cotton Piece Goods		Bengal	9,325,828	15,009,981
		British Burmah	388,851	
		Madras	1,084,594	
		Bombay (including Sind)	4,210,709	
Machinery		Bengal	144,816	405,835
		British Burmah	60,300	
		Madras	16,422	
		Bombay (including Sind)	184,297	
Metals, Manufactured; excepting Railway Materials.		Bengal	446,930	925,839
		British Burmah	35,824	
		Madras	83,873	
		Bombay (including Sind)	359,213	
Metals, Raw; exclusive of Railway Materials.		Bengal	828,197	1,464,936
		British Burmah	23,206	
		Madras	100,638	
		Bombay (including Sind)	512,894	
Railway Materials and Stores		Bengal	210,968	516,996
		British Burmah	none	
		Madras	60,232	
		Bombay (including Sind)	245,796	
	Cwts.			
Salt	6,136,775	Bengal	870,379	913,915
	Lbs.			
Silk, Raw	1,799,591	Bombay	596,882	651,595
Silk Goods		Bengal	102,970	480,948
		British Burmah	121,368	
		Madras	9,093	
		Bombay (including Sind)	247,517	
	Gallons.			
Wines, Liqueurs, Spirits, and Malt Liquors.	2,746,522	Bengal	598,581	1,381,961
		British Burmah	95,923	
		Madras	211,449	
		Bombay (including Sind)	476,008	

— No. 6. —

TABLE showing some of the PRINCIPAL ARTICLES EXPORTED from *British India* to Foreign Parts, during the Year 1871–72, taken from the Trade and Navigation Accounts, prepared by the Finance Department of Government of *India*.

PRINCIPAL ARTICLES.	WHENCE EXPORTED.	Quantity.	Value.	TOTAL. Quantity.	Value.
		Lbs.	£.	*Lbs.*	£.
Coffee	Bengal	12,081	167	56,817,153	1,380,409
	Madras	52,047,458	1,278,789		
	Bombay	4,757,614	101,453		
Cotton, raw	Bengal	164,476,961	4,036,956	809,246,087	21,272,430
	Madras	73,771,643	1,684,942		
	Bombay	540,404,613	14,820,737		
	Sind	15,344,129	438,676		
	Burmah	15,248,741	291,119		
		Cwts.		*Cwts.*	
Grains, of all sorts	Bengal	5,472,170	1,593,104	17,948,384	4,865,748
	Madras	2,370,247	827,017		
	Bombay	625,988	337,870		
	Sind	203,701	105,778		
	Burmah	9,276,278	2,001,979		
Indigo	Bengal	66,929	2,465,186	115,414	3,705,475
	Madras	44,598	1,193,715		
Jute, raw	Bengal	6,128,394	4,113,941	6,133,813	4,117,308
	Madras	4,771	2,728		
	Bombay	648	639		
		Chests.		*Chests.*	
Opium	Bengal	49,455	6,852,380	93,364	13,365,228
	Bombay	43,909	6,512,848		
		Cwts.		*Cwts.*	
Seeds	Bengal	3,979,201	2,027,392	5,079,009	2,728,127
	Madras	583,735	438,461		
	Bombay	341,001	177,795		
	Sind	175,072	83,836		
	Burmah	- - -	643		
		Lbs.		*Lbs.*	
Tea	Bengal	17,124,865	1,448,496	17,460,138	1,482,185
	Madras	36,758	4,883		
	Bombay	276,989	27,603		
	Sind	5,338	535		
	Burmah	16,188	668		
Wool, raw	Bengal	1,235	70	24,250,904	906,699
	Bombay	22,083,533	796,826		
	Sind	2,166,136	109,803		

— No. 7. —

STATEMENT showing the Number of GOVERNMENT and PRIVATE COLLEGES and SCHOOLS, with the Average DAILY ATTENDANCE of SCHOLARS during the Year 1871-72, for each Presidency or Province of British Administration in *India*.

PRESIDENCIES AND PROVINCES.	YEAR 1871-72.																Population according to Census of 1871-72.	Proportion of Scholars to Population.
	Universities.			Colleges.		Schools of High Class.		Schools of Middle Class.		Schools of Lower Class.		Girls' Schools.		Normal Schools.		TOTAL.		
	Number.	Candidates.	Passed.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.	Number.	Average Daily Attendance of Pupils.		
BENGAL:																			
Government	1	(a)2,428	792	21	1,721	52	7,926	222	9,309	20	410	2	87	(b) 29	(b)1,455	346	20,908	—	—
Private { Aided	—	—	—	5	300	78	5,852	1,240	42,112	2,431	45,639	297	6,182	15	367	4,066	100,452	—	—
Private { Unaided	—	—	—	2	36	47	11,629	196	9,027	13,557	147,887	45	1,360	1	14	13,848	169,953	—	—
TOTAL	1	2,428	792	28	2,057	177	25,407	1,658	60,448	16,008	193,936	344	7,629	45	1,836	18,260	291,313	66,856,859	1 in 229
N. W. PROVINCES:																			
Government	—	—	—	3	1,086	23	2,308	209	9,021	3,335	92,386	427	5,976	7	324	4,004	111,101	—	—
Private { Aided	—	—	—	4	998	12	2,268	154	6,911	37	1,101	112	2,983	6	80	325	14,341	—	—
Private { Unaided	—	—	—	—	—	—	—	—	—	(c) 4,609	(c) 55,456	—	—	—	—	4,609	55,456	—	—
TOTAL	—	—	—	7	2,084	35	4,576	363	15,932	7,981	148,943	539	8,959	13	404	8,938	180,898	31,310,290	1 in 173
OUDH:																			
Government	—	—	—	—	—	8	1,870	55	5,513	749	21,110	88	1,307	5	162	905	29,962	—	—
Private { Aided	—	—	—	1	739	1	140	36	2,751	24	876	13	312	—	—	75	4,818	—	—
Private { Unaided	—	—	—	—	—	—	—	—	—	(c) 568	(c) 2,940	—	—	—	—	568	2,940	—	—
TOTAL	—	—	—	1	739	9	2,010	91	8,264	1,341	24,926	101	1,619	5	162	1,548	37,720	11,220,747	1 in 298
PUNJAB:																			
Government	1	118	61	(d) 3	(d) 218	5	180	103	7,856	(e)1,087	(e) 39,611	125	2,573	3	187	1,326	50,625	—	—
Private { Aided / Unaided	—	—	—	—	—	11	2,081	50	4,066	166	8,670	314	6,646	6	183	547	21,646	—	—
TOTAL	1	118	61	3	218	16	2,261	153	11,922	1,253	48,281	439	9,219	9	370	1,873	72,271	17,596,752	1 in 243
CENTRAL PROVINCES:																			
Government	—	—	—	—	—	1	244	47	3,637	683	22,829	101	1,989	(f) 8	(f)229	840	28,328	—	—
Private { Aided	—	—	—	—	—	2	432	10	816	495	18,512	12	412	—	—	519	20,172	—	—
Private { Unaided	Not separately shown from aided.																		
TOTAL	—	—	—	—	—	3	676	57	4,453	1,178	41,341	113	2,401	8	229	1,359	49,100	9,066,038	1 in 184

British Burmah:																				
Government	—	—	—	—	—	2	156	4	197	—	—	—	—	2	58	8	411	—	—
Private Aided	—	—	—	—	—	3	338	12	799	—	—	4	341	1	145	20	1,623	—	—
Private Unaided	—	—	—	—	—	—	—	—	—	16	422	—	—	—	—	16	422	—	—
Total	—	—	—	—	—	5	494	16	996	16	422	4	341	3	203	44	2,456	2,491,736	1 in 1,014
Madras:																				
Government	1	1,419	492	5	242	12	2,642	60	8,243	17	766	13	1,110	11	1,344	118	9,347	—	—
Private Aided	—	—	—	8	176	40	9,241	447	21,330	3,629	86,952	150	7,157	9	989	2,904	98,815	—	—
Private Unaided																1,379	27,530	—	—
Total	1	1,419	492	13	418	52	11,883	(g) 507	(g)24,573	(h)3,646	(h) 87,718	163	8,267	20	2,333	4,401	135,192	31,311,142	1 in 231
Bombay and Sind:																				
Government	1	227	76	6	531	17	2,711	133	10,847	(i)2,947	(i) 116,816	177	4,417	12	497	3,292	135,819	—	—
Private Aided	—	—	—	2	No information.	19	2,861	25	1,938	(k) 79	(k) 2,267	27	1,695	(l) 2	(l) 58	154	8,819	—	—
Private Unaided	—	—	—	—	—	1	10	21	1,253	(m) 171	(m) 3,896	31	583	6	63	230	5,805	—	—
Total	1	227	76	8	531	37	5,582	179	14,038	3,197	122,979	235	6,695	20	618	3,676	150,443	14,042,596	1 in 93
Mysore:																				
Government	—	—	—	—	—	7	1,111	7	218	574	13,066	8	187	(n) 7	(n)550	603	15,132	—	—
Private Aided	—	—	—	—	—	5	673	9	533	2,031	26,768	35	1,644	—	—	2,080	29,618	—	—
Private Unaided																			
Total	—	—	—	—	—	12	1,784	16	751	2,605	39,834	43	1,831	7	550	2,683	44,750	4,422,209	1 in 97
Curg:																				
Government	—	—	—	—	—	1	197	4	127	27	964	1	10	1	5	34	1,303	—	—
Private Aided	—	—	—	—	—	—	—	—	—	30	600	—	—	—	—	30	600	—	—
Private Unaided	—	—	—	—	—	—	—	—	—	—	—	2	35	—	—	2	35	—	—
Total	—	—	—	—	—	1	197	4	127	57	1,564	3	45	1	5	66	1,938	113,689	1 in 58
Haidarabad or Berárs:																				
Government	—	—	—	—	—	2	150	52	3,350	262	6,917	27	456	1	60	(o) 344	(o) 10,933	—	—
Private Aided	No information reliable.																			
Private Unaided																				
Total	—	—	—	—	—	2	150	52	3,350	262	6,917	27	456	1	60	344	10,933	2,231,565	1 in 204

(a) Exclusive of teachers and private students.
(b) Including School of Medicine.
(c) Unaided indigenous schools not classified.
(d) Including Lahore Medical School.
(e) Including jail schools.
(f) Including one boarding school, 28 pupils.
(g) Including 23 mixed schools of girls and boys, numbering 1,227 not classified.
(h) Including 273 mixed schools of boys and girls, numbering 10,977 not classified.
(i) Including night schools.
(k) Including indigenous schools receiving aid.
(l) Special schools of art and industry.
(m) Including nine jail and police schools, 105 pupils.
(n) Including special schools.
(o) Of these 184 are indigenous schools.

Charles C. Prinsep, Statistical Department,
India Office, June 1873.

— No. 8. —

ABSTRACT STATEMENT showing the Number of EDUCATIONAL INSTITUTIONS according to CLASSIFICATION or STANDARD of EDUCATION with the Average DAILY ATTENDANCE of PUPILS in each CLASS, in each Presidency or Province of British Administration in *India* during the Year 1871-72.

PRESIDENCIES AND PROVINCES.	YEAR 1871-72.													
	COLLEGES.		HIGHER CLASS.		MIDDLE CLASS.		LOWER CLASS.		FEMALE.		NORMAL.		TOTAL.	
	Number.	Average Daily Attendance of Pupils.	Number of Schools.	Average Daily Attendance of Pupils.	Number of Schools.	Average Daily Attendance of Pupils.	Number of Schools.	Average Daily Attendance of Pupils.	Number of Schools.	Average Daily Attendance of Pupils.	Number of Institutions.	Average Daily Attendance of Pupils.	Number of Institutions.	Average Daily Attendance of Pupils.
Bengal	28	2,057	177	25,407	1,658	60,448	16,008	193,936	344	7,629	45	1,836	18,260	291,313
North West Provinces	7	2,084	35	4,576	363	15,932	7,981	148,943	539	8,959	13	404	8,938	180,898
Oudh	1	739	9	2,010	91	8,264	1,341	24,926	101	1,619	5	162	1,548	37,720
Punjab	3	218	16	2,261	153	11,922	1,253	48,281	439	9,219	9	370	1,873	72,271
Central Provinces	none		3	676	57	4,453	1,178	41,341	113	2,401	8	229	1,359	49,100
British Burmah	none		5	494	16	996	16	422	4	341	3	203	44	2,456
Madras	13	418	52	11,883	507	24,573	3,646	87,718	163	8,267	20	2,333	4,401	135,192
Bombay, including Sind	8	531	37	5,582	179	14,038	3,197	122,979	235	6,695	20	618	3,676	150,443
Mysor	none		12	1,784	16	751	2,605	39,834	43	1,831	7	550	2,683	44,750
Curg	none		1	197	4	127	57	1,564	3	45	1	5	66	1,938
Haidarabad assigned Districts or Berárs.	none		2	150	52	3,850	262	6,917	27	456	1	60	344	10,933
TOTAL	60	6,047	349	55,020	3,096	144,854	37,544	716,861	2,011	47,462	132	6,770	43,192	977,014
TOTAL Government	38	3,798	130	19,495	896	53,318	9,701	314,875	969	18,112	86	4,871	11,820	414,469
TOTAL Private	22	2,249	219	35,525	2,200	91,536	27,843	401,986	1,042	29,350	46	1,899	31,372	562,545

See also Notes at foot of detailed Statement.

Charles C. Prinsep, Statistical Department,
India Office, June 1873.

— No. 9. —

ABSTRACT STATEMENT showing the Number of EDUCATIONAL INSTITUTIONS, GOVERNMENT and PRIVATE, with the Average DAILY ATTENDANCE of PUPILS, in each Presidency or Province of British Administration in *India*, during 1871-72.

PRESIDENCIES AND PROVINCES.	YEAR 1871-72.					
	GOVERNMENT.		PRIVATE, AIDED AND UNAIDED.		TOTAL.	
	Number of Colleges and Schools.	Average Daily Attendance of Pupils.	Number of Colleges and Schools.	Average Daily Attendance of Pupils.	Number of Colleges and Schools.	Average Daily Attendance of Pupils.
Bengal	346	20,908	17,914	270,405	18,260	291,313
North-West Provinces	4,004	111,101	4,934	69,797	8,938	180,898
Oudh	905	29,962	643	7,758	1,548	37,720
Punjab	1,326	50,625	547	21,646	1,873	72,271
Central Provinces	840	28,928	519	20,172	1,359	49,100
British Burmah	8	411	36	2,045	44	2,456
Madras	118	9,347	4,283	125,845	4,401	135,192
Bombay, including Sind	3,292	135,819	384	14,624	3,676	150,443
Mysor	603	15,132	2,080	29,618	2,683	44,750
Curg	34	1,303	32	635	66	1,938
Haidarabad assigned Districts, or Berárs	344	10,933	No information		344	10,933
TOTAL	11,820	414,469	31,372	562,545	43,192	977,014

See also Notes at foot of detailed Statement.

— No. 10. —

TABLE showing the Number of PROTESTANT MISSION SCHOOLS and SCHOLARS, during the Calendar Year 1872.

	EDUCATION FOR MALES.					FEMALE SCHOOLS.	
	VERNACULAR SCHOOLS.		ANGLO-VERNACULAR SCHOOLS.		Students who passed University Examinations.	Schools.	Girls.
	Schools.	Boys.	Schools.	Boys and Students.			
Lower Provinces	471	15,013	40	6,841	1,386	148	4,431
North-West Provinces and Oudh	117	3,676	75	9,294	151	143	3,639
Punjab	42	1,222	69	7,414	132	61	1,550
Bombay and Central India	153	6,571	43	4,869	115	49	1,722
Madras	1,129	27,759	120	11,657	528	263	12,736
Burmah	189	4,037	13	836	- -	8	995
Ceylon	149	7,961	52	2,604	25	117	3,943
TOTAL	2,250	66,239	412	43,515	2,337	789	29,016

— No. 11. —

ROMAN CATHOLICS IN INDIA.

STATEMENT prepared for the recent ŒCUMENICAL COUNCIL at *Rome*.

Vicariates Apostolic.	Population.	Roman Catholics.	Vicariates Apostolic.	Population.	Roman Catholics.
Agra	42,068,103	113,914	Coimbator	1,500,000	17,000
Patna	38,498,501	8,043	Pondicherry (Vicariate Apostolic)	4,100,000	113,000
Central Bengal or Barhampur	8,000,000	6,659	Pondicherry (Apostolic Prefecture)	230,000	3,050
Western Bengal or Calcutta	10,397,000	10,350	Madura or Trichinapalli	4,226,000	168,800
Eastern Bengal or Dacca	9,261,000	8,000	Quilon	700,000	64,000
Ava and Pegu	3,083,000	8,700	Virapalli	300,000	270,000
Bombay and Púna	14,888,000	51,000	Mangalor	2,000,000	54,000
Vizagapatam	12,605,000	8,390	Goa	470,000	230,000
Haidarabad	7,020,000	5,200			
Madras	7,283,000	41,996			1,076,102
Mysor	4,000,000	20,000			

Note.—The Roman Catholic Clergy of Hindustan comprise an Archbishop of Goa, 19 Bishops who are Vicars Apostolic, 815 Priests, besides the clergy resident in the Island of Goa. There are 146 parishes, 172 districts, 70 military stations, 2,141 churches and chapels. The whole episcopate is European, and also almost all the clergy of the second order.

— No. 12. —

TABLE showing the DISTRIBUTION of the *Bengal, Madras,* and *Bombay* ARMIES according to DIVISIONS and DISTRICTS.—(From the Returns of the Quartermaster Generals' Offices for January 1873).

DIVISIONS.	INFANTRY.		CAVALRY.		Sappers and Miners.	Artillery.	TOTAL.		British Officers.	GRAND TOTAL.	Convalescents (included in the several Divisions).
	Native.	British.	Native.	British.			Native.	British.			
BENGAL:											
Army Head Quarters' Staff	- -	- -	- -	- -	Included in Infantry (Native and British).	- -	- -	- -	23	23	—
Presidency District	3,859	2,622	143	- -		447	4,002	3,069	172	7,243	—
Eastern Frontier District	4,822	- -	- -	- -		- -	4,822	- -	63	4,945	—
Allahabad Division	2,821	2,826	701	- -		752	3,522	3,578	192	7,292	—
Oudh Division	2,094	3,158	569	419		659	2,663	4,236	197	7,096	—
Sagar District	2,160	1,065	756	- -		280	2,916	1,345	96	4,357	—
Gwalior District	2,105	2,310	596	- -		343	2,701	2,653	131	5,485	—
Rohilkhand District	2,075	1,841	428	- -		149	2,503	1,990	115	4,618	165
Mirat (Meerut) Division	4,167	3,729	419	485		790	4,586	5,004	256	9,846	32
Sirhind Division	1,474	1,800	511	457		563	1,985	2,820	146	4,951	215
Lahor Division	4,076	3,030	1,347	- -		726	5,423	3,756	202	9,381	89
Rawal Pindi Division	1,054	1,643	617	180		251	1,671	2,074	93	3,838	68
Camp of Exercise at Hasan Abdul	6,142	3,407	1,988	700		914	8,130	5,021	322	13,473	—
Peshâwar District	1,495	1,494	546	- -		174	2,041	1,668	91	3,800	—
Not in Division	- -	94	323	- -		- -	- -	94	10	427	—
TOTALS	38,344	29,019	8,944	2,241	- -	6,048	47,288	37,308	2,109	86,705	569
Civil Force not under the orders of His Excellency the Commander-in-Chief:											
Viceroy's Body-guard	- -	- -	87	- -	- -	- -	87	- -	4	91	—
Rajputâna	2,913	- -	1,468	- -	- -	- -	4,058	- -	32	4,098	—
Punjab Frontier Force	8,824	- -	2,797	- -	- -	615	12,236	- -	162	12,398	—
Resident's escort, Nepaul	95	- -	- -	- -	- -	- -	95	- -	- -	95	—
TOTALS	11,832	- -	4,352	- -	- -	615	16,476	- -	198	16,682	—

Madras:											
Centre District	3,568	772	-	-	-	611	5,568	1,383	106	5,057	256
Northern District	2,836	36	-	-	-	-	2,836	36	40	2,912	—
Southern District	3,277	170	-	-	-	158	3,277	323	50	3,650	—
Mysor Division	3,127	1,025	-	459	864	313	3,991	1,797	138	5,926	205
Malabar and Canara	2,106	880	-	-	-	82	2,106	962	66	3,134	—
Ceded districts	1,413	933	336	-	-	135	1,749	1,068	75	2,892	15
Haidarabad Subsidiary Force	2,525	1,726	289	447	335	470	3,149	2,643	185	5,977	—
Nágpur Force	2,781	886	307	-	-	307	3,088	1,193	99	4,380	—
British Burmah Division	3,057	2,433	-	-	113	420	3,170	2,853	170	6,193	—
Totals	24,690	8,861	932	906	1,312	2,491	26,934	12,258	929	40,121	476
Bombay:											
Presidency Division	1,856	235	30	-	-	138	1,886	373	32	2,291	20
Púna Division	5,180	2,447	867	474	394	613	6,428	3,547	216	10,191	35
Mau Division	3,213	1,869	479	-	-	305	3,692	2,174	117	5,983	—
Northern Division	4,888	903	486	-	-	303	5,374	1,206	116	6,696	119
Sind Division	2,043	950	1,463	-	-	291	3,506	1,241	81	4,828	52
Belgaum Division	3,115	974	77	-	-	146	3,192	1,120	74	4,386	—
Aden Division	330	637	100	-	94	159	524	796	43	1,363	—
Totals	20,625	8,015	3,502	474	488	1,955	24,602	10,457	679	35,738	226
Totals for Three Presidencies	95,491	45,895	17,730	3,621	1,800	11,109	115,300	60,023	3,915	179,246	1,271
Miscellaneous Forces of other Governments:											
Haidarabad Contingent	5,461	-	2,302	-	-	520	8,283	-	67	8,350	—
Mysor Sillahdar Horse	-	-	2,191	-	-	-	2,191	-	-	2,191	—
Nair Brigade	1,420	-	-	-	-	30	1,450	-	4	1,454	—
Totals	6,881	-	4,49		-	550	11,924	-	71	11,995	—
Grand Totals	102,372	45,895					127,224	60,023	3,986	**191,241**	1,271

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